

U.S. ARMY

Small Business Innovation Research (SBIR)



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U.S. ARMY

**SMALL BUSINESS INNOVATION RESEARCH
PROGRAM (SBIR)**

**MISSION OBJECTIVES
AND
POINTS OF CONTACT**

**NOTE: THIS DOCUMENT WAS COMPILED AS A SOURCE
OF INFORMATION FOR SMALL BUSINESSES INTERESTED
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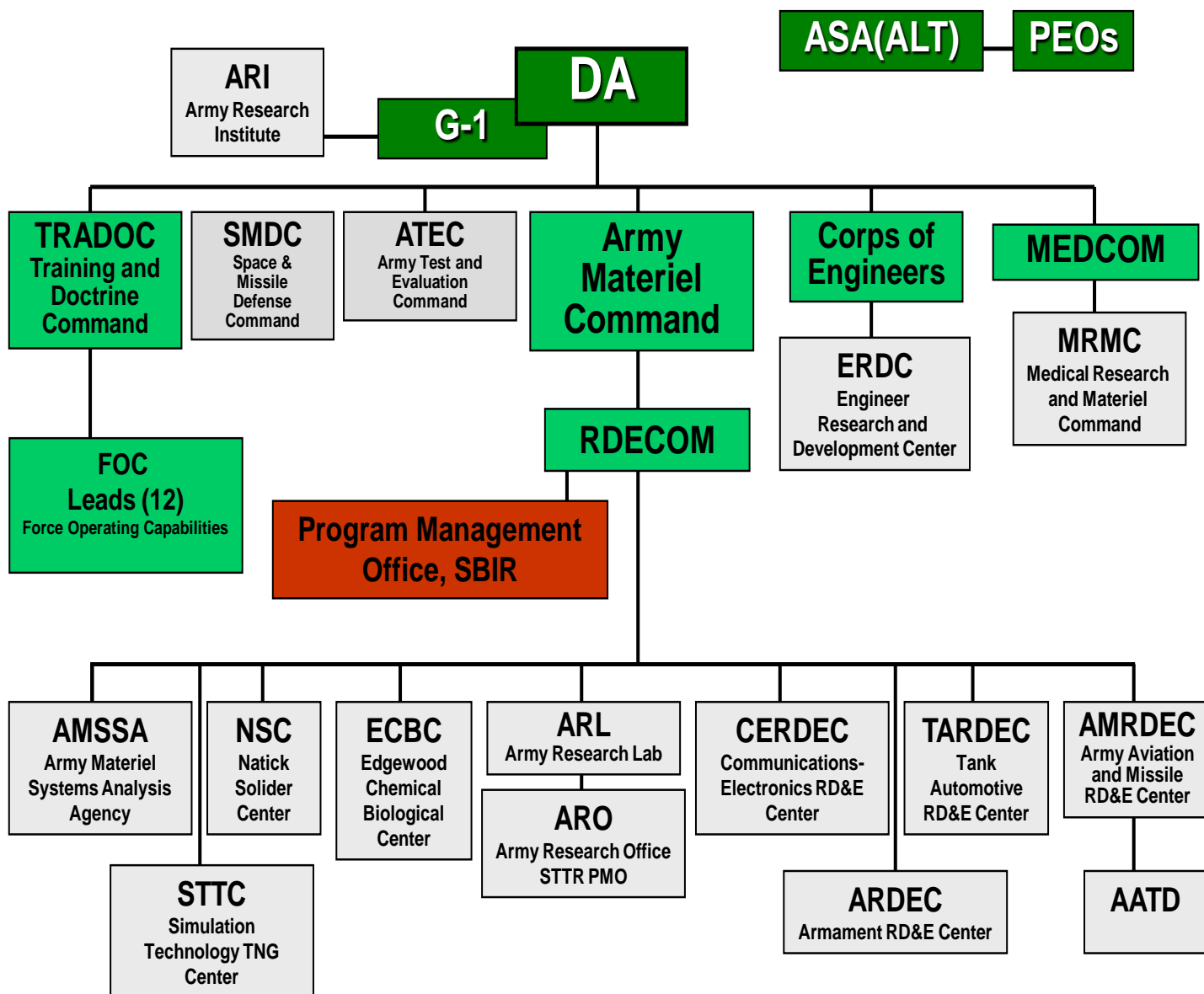
TABLE OF CONTENTS

<u>ARMY RESEARCH AND DEVELOPMENT ORGANIZATIONS CHART</u>	PAGE 1
I. <u>ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (ARDEC)</u>	PAGE 2
II. <u>ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCE (ARI)</u>	PAGE 3
III. <u>ARMY RESEARCH LABORATORY (ARL)</u>	PAGE 4-9
IV. <u>COMMUNICATION-ELECTRONICS RESEARCH DEVELOPMENT & ENGINEERING CENTER (CERDEC)</u>	PAGE 10-11
V. <u>U.S. ARMY CORPS OF ENGINEERS ENGINEER RESEARCH AND DEVELOPMENT CENTER</u>	PAGE 12-15
VI. <u>EDGEWOOD CHEMICAL BIOLOGICAL CENTER (ECBC)</u>	PAGE 16
VII. <u>NATICK SOLDIER RESEARCH DEVELOPMENT AND ENGINEERING CENTER (NSRDEC)</u>	PAGE 17
VIII. <u>U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND (USAMRMC)</u>	PAGE 18-19
IX. <u>U.S. ARMY AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER (AMRDEC)</u>	PAGE 20-23
X. <u>SPACE AND MISSILE DEFENSE COMMAND (SMDC)</u>	PAGE 24
XI. <u>SFC PAUL RAY SMITH SIMULATION & TRAINING TECHNOLOGY CENTER (STTC)</u>	PAGE 25
XII. <u>TANK AUTOMOTIVE RESEARCH DEVELOPMENT & ENGINEERING CENTER (TARDEC)</u>	PAGE 26-27
XIII. <u>ARMY TEST & EVALUATION COMMAND (ATEC)</u>	PAGE 28

TABLE OF CONTENTS (CONT)

<u>PROGRAM EXECUTIVE OFFICE/PROJECT MANAGER CHART</u>	PAGE 29
XIV. <u>PEO AMMUNITION</u>	PAGE 30-31
XV. <u>PEO AVIATION</u>	PAGE 32
XVI. <u>JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD)</u>	PAGE 33-37
XVII. <u>PEO COMBAT SUPPORT AND COMBAT SERVICE SUPPORT (CS&CSS)</u>	PAGE 38
XVIII. <u>PEO COMMAND, CONTROL AND COMMUNICATIONS TACTICAL (C3T)</u>	PAGE 39-41
XIX. <u>PEO ENTERPRISE INFORMATION SYSTEMS (EIS)</u>	PAGE 42-49
XX. <u>PEO GROUND COMBAT SYSTEMS (GCS)</u>	PAGE 50
XXI. <u>PEO INTELLIGENCE, ELECTRONIC WARFARE & SENSORS (IEW&S)</u>	PAGE 51-52
XXII. <u>PEO MISSILES AND SPACE</u>	PAGE 53-54
XXIII. <u>PEO SIMULATION, TRAINING AND INSTRUMENTATION (STRI)</u>	PAGE 55-56
XXIV. <u>PEO SOLDIER</u>	PAGE 57

ARMY R&D Organizations



I. ARMAMENT, RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (ARDEC), PICATINNY ARSENAL, NJ

SBIR POC: Carol L’Hommedieu, 973-724-4029, carol.j.lhommedieu@us.army.mil

Headquartered at Picatinny Arsenal, New Jersey, the Armament Research, Development and Engineering Center (ARDEC) is the Army’s principal researcher, developer and sustainer of advanced armament and munitions systems. Picatinny is known as the Home of American Firepower, a one-of-a-kind facility that provides virtually all of the lethal mechanisms used in Army weapon systems and in those of the other military services. ARDEC’s mission is to support Army transformation goals. Known as the Army’s “Center of Lethality,” ARDEC is committed to providing the warfighter the most effective products in the world.

MISSION: ARDEC’s overall mission is to improve already fielded items, develop new items, maintain a strong armament technology base in government, industry, and academia, and provide technical support to soldiers in the field.

AREAS OF INTEREST: The Center’s efforts are concentrated in the following major technical areas: Smart Munitions, Indirect Fire, Direct Fire, Soldier Weapons, Mines and Demolitions, Gun Propulsion, Fuzing and Lethal Mechanisms, Fire Control, Munitions Survivability and Pollution Prevention.

ARDEC Products Index:

- Acoustic/Seismic Sensors
 - Multi-Mode Warheads
 - Novel/Nano-Structured Energetics
 - MEMS
 - Commander’s Decision Aids
 - Smart Munitions
 - Mortar Systems
 - Medium Caliber Weapons
 - Conventional Munitions
 - Weapon Aiming and Fire Control
 - Explosives
 - Small Caliber and Infantry Weapons
 - Aircraft Armaments
 - Combat Vehicle Armaments
 - Countermines
 - Non-Lethal Capabilities
 - Fuzes
 - Logistics Research and Development
 - Tank Munitions Development
 - Antipersonnel Landmine Alternatives
 - Demolitions
 - Advanced Energy Weapons Systems
 - Environmental Programs
-

II. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCE (ARI), ARLINGTON, VA

SBIR POC: Dr. Kelly Ervin, 703-545-2401, kelly.s.ervin@us.army.mil
Dr. Jim Belanich, 703-602-7937, james.belanich@us.army.mil

MISSION: Improve Soldier, leader, and unit performance through advances in behavioral and social sciences; enable synergy between human and technology innovation for mission success.

OBJECTIVES: To provide non-material human science solutions that allows Soldiers and leaders to leverage the full potential of the advanced technologies being developed and fielded, and to adapt and excel in any situation.

AREAS OF INTEREST:

- Selection and classification
 - Human learning
 - Training and leader development
 - Performance measurement
 - Group dynamics
 - Culture and society
 - Attitudes and opinions
-

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD

SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

The Army Research Laboratory (ARL) is the Army's corporate basic and applied research laboratory. Its mission is to provide innovative science, technology, and analysis to enable full-spectrum operations. ARL consists of the Army Research Office (ARO) and six Directorates-- Weapons and Materials, Sensors and Electron Devices, Human Research and Engineering, Computational and Information Sciences, Vehicle Technology, and Survivability and Lethality Analysis. ARL scientific discoveries, technological advances, and analyses provide the warfighters with the capabilities to succeed on the battlefield.

A. ARMY RESEARCH OFFICE (ARO), RESEARCH TRIANGLE PARK, NC

SBIR POC: Nicole Fox, 919-549-4395, Nicole.r.fox@us.army.mil

MISSION: The U.S. Army Research Office (ARO) mission is to seed scientific and far reaching technological discoveries that enhance Army capabilities. Basic research proposals from educational institutions, nonprofit organizations, and private industry are competitively selected and funded. ARO's research mission represents the most long-range army view for changes in its technology. It is the only Army organization that transcends all of its mission areas: Commander-Fire Support; Close Combat; Air Defense; Combat Support; Combat Service Support; Solider Support; Command, Control, and Communications. In all respects, the ARO program is the designated organization for the entire spectrum of army activities extending from research to development to acquisition. ARO priorities fully integrate Army-wide, long-range planning for research, development, and acquisition.

The roots of research are in the scientific and engineering disciplines, namely aeronautics, biology, chemistry, electronics, geosciences, mathematics, mechanics, metallurgy, physics, and so on. Many innovations are a direct result of fundamental changes in this science base. In recognition of these roots, the ARO program is organized along scientific disciplinary lines. This is the natural way in which the resident national talent base interfaces with the Army.

CHEMISTRY AREAS OF INTEREST:

- Elastomers for Soldier Protection and Army Materiel
- Electrochemistry and Power Sources
- Oxidation
- Organized Media And Organic Chemistry For Threat Agent Decontamination
- Surfaces & Catalysis
- Fast Reaction Kinetics and Energetic Materials
- Novel Molecules for Advanced Army Materiel

COMPUTING AND INFORMATION SCIENCES AREAS OF INTEREST:

- Systems And Controls
- Software And Knowledge-Based Systems
- Communications And Networks
- Info Processing/Fusion And Circuits
- Information Assurance

ELECTRONICS AREAS OF INTEREST:

- Multifunctional Sensing
- High Frequency, Mobile Platform Communications
- Information Science Electronics
- Optoelectronic Warfare
- Landmine Detection

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD (CONTINUED)
SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

ENVIRONMENTAL SCIENCES AREAS OF INTEREST:

- Atmospheric Sciences
 - Atmospheric Efforts On Signature And Communications
 - Characterization Of The Atmosphere At High Resolution
 - Management And Application Of Atmospheric Information
- Terrestrial Sciences
 - Terrain Properties And Characterization
 - Terrestrial Processes And Dynamics
 - Terrestrial System Analysis And Modeling

LIFE SCIENCES AREAS OF INTEREST:

- Bimolecular And Cellular Materials And Processes
- Microbiology And Biodegradation
- Physiology, Survivability & Performance
- Neurophysiology And Cognitive Sciences
- Molecular Genetics And Genomics

MATERIALS SCIENCE AREAS OF INTEREST:

- Multifunctional And Smart Materials
- Probability And Statistics
- Deformation And Toughening Phenomena
- Defect Engineering
- Interface Engineering And Surface Modification
- Computational Materials Modeling And Design
- Synthesis & Processing
- Defect Engineering
- Deformation & Fracture
- Strengthening & Tough Materials
- Nondestructive Characterization

MATHEMATICAL SCIENCES AREAS OF INTEREST:

- Probability & Statistics
 - Stochastic Analysis and Applied Probability
 - Statistical Methods
- Discrete Mathematics And Computer Science
 - Discrete Mathematics
 - Computer Science
- Computational Mathematics
 - Numerical Methods
 - Optimization
 - Software Tools
- Modeling of Complex Systems
 - Advanced Complex Materials for Structure, Armor, and Sensors
 - Inverse Scattering In Complex Media
 - Modeling of Multi-Scale Objects and Functions
 - Nonlinear Dynamics For Communications
 - Data Fusion In Complex Networks
 - Dynamics of Distributed Networks of Embedded Sensors and Actuators

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD (CONTINUED)
SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

MECHANICAL SCIENCES AREAS OF INTEREST:

- Propulsion and Energetics Programs
 - Engine Combustion
 - Gun and Missile Propulsion/Energetic Materials Hazards
- Fluid Dynamics Program
 - Flow Separation/Dynamic Stall
 - Micro Adaptive Flow Control
- Solid Mechanical Program
 - Mechanics of Heterogeneous Systems
 - Impact, Blast, and Penetration
- Structure And Dynamics Program
 - Structural Mechanics of Composite Materials
 - Structural Dynamics and Simulation
 - Smart Structures

PHYSICS AREAS OF INTEREST:

- Condensed Matter Physics Program
 - Nanometer-Scale Physics
 - Electronic and Photonic Band Engineering
 - Multifunctional Probes and Control
- Theoretical Physics and Nonlinear Phenomena
- Quantum Information Sciences
 - Fundamental Studies
 - Quantum Computation
 - Quantum Communication
- Atomic And Molecular Physics
 - Matter-Wave Optics
 - Molecular Physics
 - Fundamental Atomic and Molecular Physics
- Optics, Photonics And Imaging Science
 - Optics
 - Photonics
 - Imaging
- Soldier Enhancement
- Atomic, Molecular, and Optical Physics
- Nonlinear Dynamics and Theoretical
- Photonics
- Optics, Photonics, Image
- Quantum Information Science
- Condensed Matter

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD (CONTINUED)

SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

B. COMPUTATIONAL & INFORMATION SCIENCES DIRECTORATE (CISD), ABERDEEN PROVING GROUND & ADELPHI, MD

POC: Dr. Raju Namburu, 301-394-5442, raju@arl.army.mil

MISSION: The U.S. Army Research Laboratory (ARL) Computational and Information Sciences Directorate (CISD) plays a key role in Information Sciences and Technology Research within the Army and the Department of Defense (DoD). CISD provides innovative technologies to enable knowledge superiority for the Warfighter through basic and applied research focused on battlefield communications and networks, battlefield information processing, data fusion and knowledge management, battlefield weather and environmental effects, and computational science and engineering.

The CISD mission areas include the operation of the ARL DoD Major Shared Resource Center (MSRC), the Army High Performance Computing Research Center (AHPCRC), the Communications & Networks CTA, and the Network & Information Sciences ITA. The directorate works closely with many academic, industry, and government partners to accomplish its mission.

AREAS OF INTEREST:

- Battlefield Information Processing (Software Technology, Intelligent Systems, Fusion)
- Tactical Communication & Networks (Information Distribution)
- Battlefield Environment (Weather/Meteorology)
- Computational Science & Engineering
- High Performance Computing
- Automation Resources
- Enterprise Systems

C. HUMAN RESEARCH AND ENGINEERING DIRECTORATE (HRED), ABERDEEN PROVING GROUND, MD

POC: Wendy Leonard, 410-278-5813, wendy.leonard@us.army.mil

MISSION: The Human Research and Engineering Directorate's (HRED) mission is to optimize Soldier effectiveness and Soldier-machine interactions and to ensure that future system designs will enable our Soldiers to achieve maximum performance. To fulfill this mission, HRED conducts broad-based scientific research and technology application and provides leadership in human factors integration and support to MANPRINT.

AREAS OF INTEREST:

- Soldier Performance
- Human Factors
- Soldier Information (Displays, Interfaces, Simulations)
- Soldier Centered Design Tools

D. SENSORS & ELECTRON DEVICES DIRECTORATE (SEDD), ADELPHI, MD

POC: Steven Rager, 301-394-0097, srager@arl.army.mil

MISSION: The Sensors and Electron Devices Directorate (SEDD) works in many areas crucial to the success of the future Army, providing fundamental research to give commanders real-time situational awareness; rapid and precise discrimination and targeting; highly compact, lightweight energy sources; as well as mitigating techniques for use against hostile enemy threats.

AREAS OF INTEREST:

- Electro-Optics and Photonics
- RF & Electronics
- Signal & Image Processing
- Power Generation
- Directed Energy

- Low Observable Technology

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD (CONTINUED)

SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

E. SURVIVABILITY/LETHALITY ANALYSIS DIRECTORATE (SLAD), WHITE SANDS, NM & ABERDEEN PROVING GROUND, MD

POC: John Beilfuss, 410-278-6291, jwbeilfu@arl.army.mil

MISSION: On the future battlefield, the soldier will face an array of threats from the conventional, Electronic, And Electromagnetic to the Nuclear, Biological, Chemical, and Environmental. The Survivability & Lethality Analysis Directorate (SLAD) develops and conducts vulnerability and lethality assessments of Army technologies and systems and provides recommendations and technical expertise to reduce or eliminate vulnerabilities and to improve effectiveness.

AREAS OF INTEREST:

- Systems Survivability/Lethality
- Ballistic Vulnerability/Lethality
- Chem-Bio & Nuclear Effects
- Electronic Warfare
- Information Operations

F. VEHICLE TECHNOLOGY DIRECTORATE (VTD), HAMPTON, VA AND CLEVELAND, OH

POC: Peter Meitner, 216-433-3715, p.l.meitner@grc.nasa.gov

MISSION: The Vehicle Technology Directorate (VTD) is the principal Army organization for research and development in vehicle propulsion and structures. VTD conducts innovative research in propulsion, transmission, structures, and aeromechanics to provide the Army with lighter, more reliable, and more fuel-efficient air and ground combat vehicles. VTD coordinates technologies within the Army, other services and their laboratories, industry, and academia to leverage basic and applied research opportunities for the benefit of the Army.

AREAS OF INTEREST:

- Propulsion Technologies for Manned and Unmanned Air and Ground Vehicles
- Engine Components and Modeling
- Drive train Components and Modeling
- High Temperature Propulsion Materials
- Fracture mechanics structural failure prediction
- Nonlinear multibody dynamics
- Rotorcraft aeromechanics
- Microsystem mechanics
- Tactical perception
- Miniature high voltage amplification

III. ARMY RESEARCH LABORATORY (ARL), ADELPHI, MD (CONTINUED)

SBIR POC: Mary Cantrill, 301-394-3492, mary.cantrill@us.army.mil

G. WEAPONS & MATERIALS RESEARCH DIRECTORATE (WMRD), ABERDEEN PROVING GROUND, MD

POC: Todd Rosenberger, 410-306-0669, todd.rosenberger@us.army.mil

MISSION: The U.S. Army Research Laboratory's Weapons and Materials Research Directorate (WMRD) is the principal Army organization for research and development in weapons and materials technologies. WMRD conceives, exploits, matures, and transitions novel concepts and technologies in the areas of weapons, protection, robotics, and materials to enhance the lethality and survivability of America's ground forces. WMRD also solves technical problems associated with developmental and fielded weapon systems and provides technology and support for enhanced survivability and lethality system assessment and for the Army's decision-making process. WMRD coordinates technologies within the Army, other services and their laboratories, industry, and academia to leverage basic and applied research opportunities for the benefit of the Army.

AREAS OF INTEREST:

- Materials (Ceramics, Metals, Polymers, Composites, Nanomaterials, Etc)
 - Propulsion
 - Aeroballistics
 - Terminal Effects
 - Weapons Technology Analysis and Concepts
 - Semi-Autonomous Robotics
-

IV. COMMUNICATION-ELECTRONICS RESEARCH DEVELOPMENT AND ENGINEERING CENTER (CERDEC), FT. MONMOUTH, NJ

SBIR POC: Suzanne Weeks, 732-427-3275, suzanne.weeks@us.army.mil

MISSION: To develop and integrate Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) technologies that enable information dominance and decisive lethality for the networked Warfighter.

A. NIGHT VISION AND ELECTRONIC SENSORS DIRECTORATE AREAS OF INTEREST:

- Thermal Imaging
- Image Intensification
- Advanced Optics And Displays
- Lasers/Laser Radar
- Image and Signal Processing (e.g., Automatic/Aided Target Recognition)
- Countermine/Improvised Explosive Devices (IEDs)
- Sensor Modeling & Simulation
- Systems Level Integration
- Sensor Networks
- Deception

B. INTELLIGENCE AND INFORMATION WARFARE DIRECTORATE AREAS OF INTEREST:

- Intelligence, Surveillance and Reconnaissance ISR Sensors
- SIGINT
- COMINT
- ELINT
- MASINT
- RADINT
- Multi-INT
- Intelligence, Surveillance and Reconnaissance ISR Processing
- Electronic Warfare/Force Protection
- Information Operations
- Combat Identification
- Modeling and Simulation

C. SPACE AND TERRESTRIAL COMMUNICATIONS DIRECTORATE AREAS OF INTEREST:

- Information Assurance
- Antennas
- Mobile Networking
- Mobile Laser

IV. COMMUNICATION-ELECTRONICS RESEARCH DEVELOPMENT AND ENGINEERING CENTER (CERDEC), FT. MONMOUTH, NJ (CONTINUED)

SBIR POC: Suzanne Weeks, 732-427-3275, suzanne.weeks@us.army.mil

D. COMMAND AND CONTROL DIRECTORATE AREAS OF INTEREST:

- Battle Command
 - Visualization of Battlefield Information
 - Service Based Software Technologies for Plan Execution & Monitoring
 - Mobile Computer Middleware
 - Rapid Capture of Commanders' Knowledge
 - Contextual Information Management
 - Knowledge Management
 - Web-Based Technologies for Planning
 - Common Graphics Unit Interface (GUI) to Virtual Services
 - Visual Displays
 - Immersive 3D
 - Interactive Speech
 - Machine Language Translation/Natural Language Processing
 - Position Navigation
 - Positioning, Navigation & Timing
 - Algorithms for Organic Unmanned Sensor Systems/Platforms
 - Future Force Power
 - Fuel Cells & Hybrid Systems
 - Power Management
 - Electromechanical Devices & Systems
 - Ultracapacitors
 - Rechargeable Batteries
 - Battery Chargers
 - Heat Actuated Cooling
 - Renewable Energy Sources
 - Prototype Development & Platform Integration Technologies
-

V. US ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

The US Army Corps of Engineers, Engineer Research and Development Center (ERDC) is one of the most diverse engineering and scientific research organizations in the world. ERDC conducts research and development at seven laboratories located at four geographical sites in Vicksburg, Mississippi; Champaign, Illinois; Hanover, New Hampshire; and Alexandria, Virginia. ERDC employs more than 2,500 federal employees and contractors, and has an annual research program exceeding \$1 billion.

MISSION: The Mission of the ERDC is to provide science, technology, and expertise in engineering and environmental sciences in support of our Armed Forces and the Nation to make the world safer and better. The ERDC addresses research and development in four major areas:

- Civil Works/Water Resources
- Environmental Quality/Installations
- Geospatial Research and Engineering
- Military Engineering

AREAS OF INTEREST: ERDC research and development focuses on five primary technical areas to support the Army and the Corps of Engineers:

- Warfighter Support – geospatial information; system development; operational support; force protection; and force projection and sustainment
- Installations – transformation; operations; and environmental issues
- Environment – remediation and restoration; land planning, stewardship and management; threatened and endangered species; and cultural resources
- Water Resources – infrastructure, environmental issues, and navigation; flood control and storm damage reduction
- Information Technology – informatics; geospatial technologies; computational services; and high performance computing applications.

V. US ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

A. COASTAL AND HYDRAULICS LABORATORY, (CHL), 3909 HALLS FERRY ROAD, VICKSBURG, MS 39180-6199
PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

MISSION: The Coastal and Hydraulics Laboratory (CHL) is internationally known for its experimental and computational expertise needed to solve water resource problems worldwide. CHL addresses an entire spectrum of water resource challenges in groundwater, watersheds, rivers, reservoirs, estuaries, harbors, coastal inlets and wetlands.

AREAS OF INTEREST:

- Inland/Coastal Navigation
- Logistics-over-the-shore
- Dredging
- Flood Control
- Storm and Erosion Protection
- Waterway Restoration
- Hydro-Environmental Modeling
- Water and Land Management

V. US ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

B. COLD REGIONS RESEARCH and ENGINEERING LABORATORY (CRREL), 72 LYME ROAD, HANOVER, NH 03755-1290
PC: vEnessa Acham, 603-646-4656, vEnessa.Y.Acham@usace.army.mil

MISSION: The mission of the Cold Regions Research and Engineering Laboratory (CRREL) is to solve interdisciplinary, strategically important problems of the US Army Corps of Engineers, Army, Department of Defense, and the Nation by advancing and applying science and engineering to complex environments, materials, and processes in all seasons and climates, with unique core competencies related to the Earth's cold regions.

AREAS OF INTEREST:

- Biogeochemical Processes in Earth Materials - enhances battlespace awareness and force protection, and sustains training through microbial forensics and use of new plant materials.
- Cold Regions Infrastructure - provides unique cold regions technologies for logistics, construction, operations and maintenance of tactical and strategic facilities.
- Environmental Fate and Transport Geochemistry - sustains training and restores the environment by rapid assessment of fate and transport of military contaminants under extreme terrain conditions.
- Hydrology and Hydraulics - provides assessments of, and technology for, winter impacts on Corps structures, ice jam mitigation, and cold regions hydrology and river restoration.
- Maneuver Support and Sustainment - enhances Army mobility and force projection over a variety of deformable terrain conditions across all seasons.
- Signature Physics – increases understanding of environmental influences on sensing phenomenology enabling battle command through decision support tools.
- Terrain Properties and Properties Mission - improves adaptation of operations to Earth surface dynamics forced by the atmosphere.
- Water Resources Geospatial Applications - improves data collection, analyses, and decision support through remote sensing and geographic information system applications.

V. US ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

C. CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL), PO BOX 9005, 2902 NEWMARK DRIVE, CHAMPAIGN, IL 61826-9005
PC: Marguerite Wise, 217-373-6795, marguerite.wise@usace.army.mil

MISSION: The Construction Engineering Research Laboratory (CERL) develops and infuses innovative technologies to provide state-of-the-art facilities and realistic training lands for the Department of Defense. Products and services from CERL research enhance the Army's ability to design, build, operate, and maintain its installations and to ensure environmental quality at the lowest life-cycle cost.

AREAS OF INTEREST:

- Sustainable Installations
- Resilient Facilities and Infrastructure
- Durable and Multi-Functional Materials
- Installation Decision Support
- Urban and Stability Operations
- Military Ranges and Lands

D. ENVIRONMENTAL LABORATORY, (EL), 3909 HALLS FERRY ROAD, VICKSBURG, MS 39180-6199
PC: John Ballard, 601-634-2446, john.h.ballard@usace.army.mil

MISSION: The Environmental Laboratory (EL) is the problem solver for the Corps and the Nation in environmental science and engineering research and development in support of environmental systems. The staff supports the environmental missions of the US Army, the Department of Defense, and the Nation through research, development, special studies, and technology transfer. EL research includes a network of expertise and facilities from other ERDC and Corps of Engineers Laboratories, other government agencies, academia, and private sector.

AREAS OF INTEREST:

- Environmental Site Characterization
 - Installation Restoration
 - Ecosystem Processes
 - Wetlands Processes
 - Reservoir, Ravine, Estuarine and Coastal Water Quality
- Natural Resource Management
- Range Sustainability

**V. U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199 (CONTINUED)**
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

E. GEOTECHNICAL AND STRUCTURES LABORATORY, (GSL), 3909 HALLS FERRY ROAD, VICKSBURG, MS 39180-6199

PC: Patricia Sullivan, 601-634-3065, patricia.m.sullivan@usace.army.mil

MISSION: The Geotechnical and Structures Laboratory (GSL) serves the US Army and the nation by developing solutions to challenges in geotechnical and structural engineering and related disciplines. Its mission focuses on military engineering to develop innovative technologies for survivability and protective structures, airfields/pavements, and sustained maneuverability, and on civil works engineering to support water-resource infrastructure and geosciences.

AREAS OF INTEREST:

- Soil and Rock Mechanics
- Geotechnical Engineering
- Geology, Geophysics, and Hydrogeology
- Earthquake Engineering
- Pavements Technology
- Structural Engineering, including Structural Dynamics
- Military Engineering
- Vehicle-Terrain Interaction
- Concrete and Construction Materials Technology

F. INFORMATION TECHNOLOGY LABORATORY (ITL), 3909 HALLS FERRY ROAD, VICKSBURG, MS 39180-6199

PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

MISSION: The Information Technology Laboratory (ITL) is the premier Department of Defense (DoD) laboratory for development and application of advanced information technology to military and civil works mission areas. ITL supports the research missions of the ERDC, other Corps activities, the Army, DoD, and other agencies by conceiving, planning, managing, conducting, and coordinating research and development (R&D) in high performance computing, computer-aided and interdisciplinary engineering, computer science, information technology, and instrumentation systems. Through a balanced program of R&D and demonstration, ITL advances the Army's knowledge and ability to use advanced information technology to address a wide range of engineering and scientific challenges.

AREAS OF INTEREST:

- High Performance Computing
- Systems Engineering and Informatics
- Computational Science and Engineering
- Scientific Computing

V. US ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC),
ERDC Headquarters: 3909 Halls Ferry Road, Vicksburg, MS 39180-6199
SBIR PC: Theresa Salls, 603-646-4591, theresa.a.salls@usace.army.mil

G. TOPOGRAPHIC ENGINEERING CENTER (TEC), 7701 TELEGRAPH ROAD, BUILDING 2592, ALEXANDRIA, VA 22315-3864
PC: James Rogers, 703-428-7447, james.p.rogers.ii@usace.army.mil

MISSION: The mission of the Topographic Engineering Center (TEC) is to provide the warfighter with a superior knowledge of the battlefield, and support the nation's civil and environmental initiatives through research, development, and the application of expertise in the topographic and related sciences.

AREAS OF INTEREST:

- Imagery, Geographic Information Systems, and Integrating Technologies – to provide superior knowledge of the battlespace.
 - Visual, Spectral, Spatial, and Other Remote and In situ Sensor Data - for mapping, terrain analysis, feature extraction, battlespace chemical/biological detection, precise positioning, and navigation for both warfighter and civil communities.
 - Geospatial Information - for system development, scientific integration, and demonstration support.
-

VI. EDGEWOOD CHEMICAL BIOLOGICAL CENTER (ECBC), ABERDEEN PROVING GROUND, MD

SBIR POC: Martha Weeks, 410-436-5391, martha.weeks@us.army.mil

MISSION: Provide integrated science, technology and engineering solutions to overcome chemical and biological vulnerabilities

VISION: Be the premier national resource for chemical and biological defense solutions

CRITICAL CAPABILITIES:

- Chemistry and Bioscience of CB Warfare
- Inhalation Technology
- Aerosol Physics
- Filtration Sciences
- Agent Spectroscopy/Algorithm Development
- CB Testing and Evaluation
- CB Materiel Acquisition
- Agent Handling and Surety
- Chemical Munitions Field Operations

AREAS OF INTEREST:

- Detection and Identification of Chemical and Biological (CB) Agents
 - Advanced Warning of All Chemical and Biological Agents
 - Chemical and Biological Protective Masks
 - Provide Smoke for Protection of the Battlefield
 - Collective Protection Against CB Agents For Vans, Vehicles and Shelters
 - Decontamination of Equipment Exposed to CB Agents
 - Preparedness Against Domestic CB Terrorism
-

VII. NATICK SOLDIER RESEARCH, DEVELOPMENT & ENGINEERING CENTER (NSRDEC), NATICK, MA

SBIR POC: Arnold Boucher, 508-233-5431, arnold.boucher@us.army.mil
Cathy Polito, 508-233-5372, cathryn.polito@us.army.mil

MISSION: To maximize the Warfighter's survivability, sustainability, mobility, combat effectiveness and quality of life by treating the Warfighter as a System.

OBJECTIVES: We accomplish our mission through basic and applied research, technology development and demonstration, and engineering of combat clothing and individual equipment, rations and food service equipment, airdrop systems, shelters, and organizational equipment. We also integrate and transition the technologies for combat-essential elements of command and control, survivability, lethality, sustainability and mobility into the soldier system and warrior systems for other services and agencies. We are in direct support of the Army's S&T vision, strategy, and transformation objectives.

VISION: To be the recognized center and partner of choice for the Warfighter and homeland defender related to research, technologies and systems.

AREAS OF INTEREST:

- Ballistic Protection
 - Percutaneous Chemical/Biological Protection
 - Countermeasures to Sensors
 - Multifunctional Materials
 - Bioengineered Materials
 - Laser Eye Protection
 - Soldier Modeling and Simulation
 - Soldier Integrated/Environmental Protection
 - Airdrop Systems
 - Performance Enhancements and Nutrition
 - Food Preservation and Stabilization
 - Food Packaging
 - Food Service Equipment/Energy
 - Airbeam Technology for Shelters
 - Rigid and Soft Wall Shelters
 - Organizational Equipment
-

VIII. U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND (USAMRMC), FORT DETRICK, MD

SBIR POC: Mr. J.R. Myers, 301-619-7377, james.myers10@us.army.mil

MISSION:

- Provide medical knowledge and materiel that supports the Warfighter across the full spectrum of health care missions worldwide
- Provide medical knowledge and materiel lifecycle management and execution for the Warfighter across the full spectrum of health care missions worldwide
- Partner with other military and government agencies, academia, and private industry
- Specific functions:
 - To advance Research, development, and acquisition of knowledge and medical products.
 - To deliver, maintain, and dispose medical equipment and supplies.
 - To provide health facility capital investment and life cycle management expertise.
 - To develop, deploy, operate, and sustain medical IM/IT systems.

VISION: We deliver the best medical solutions - for today and tomorrow - to enhance, to protect and to treat & heal the warfighter on point for the Nation: the backbone of the joint biomedical research and materiel community.

AREAS OF INTEREST:

- Military Infectious Diseases Research
 - Medical Readiness
 - Vaccines
 - Biotechnology
 - Prophylaxis/Treatment Drugs
 - Diagnostics/Prognostics
 - Vector Control
 - HIV Countermeasures
- Combat Casualty Care Research
 - Lightweight Medical Equipment
 - Medical C4isr
 - Trauma Care
 - Health Monitoring & Diagnostic Technology
- Military Operational Medicine Research
 - Soldier Selection and Sustainment
 - Soldier Performance
 - Warrior System Modeling
 - Health Hazards Protection
 - Health Monitoring
- Medical Chemical And Biological Defense Research
 - Medical Management of CW and BW Casualties
 - Medical Readiness
 - Drug Prophylaxes/Pretreatments
 - Vaccines/Therapies
 - Diagnostics/Prognostics
 - Biotechnology
- Congressionally Directed Medical Research Programs
 - Breast, Prostrate, And Ovarian Cancer Research
 - Neurofibromatosis Research
 - Osteoporosis And Bone Disease Research
 - Prion Diseases Research
 - Alcoholism Research
 - Lung Cancer Research

VIII. U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND (USAMRMC), FORT DETRICK, MD
(CONTINUED)

SBIR POC: Mr. J.R. Myers, 301-619-7377, james.myers10@us.army.mil

- Telemedicine And Advanced Technology Research Center
 - Medical Telecommunications
 - Computer Software Engineering
 - Artificial Intelligence and Robotics
 - Medical Informatics and Information Technology
 - Medical Modeling, Simulation, and Training Technology
 - Field-based Diagnostic Tools
 - Orthotics, Prosthetics, and Rehabilitation
 - Bioinformatics
 - Computational Biology
 - Bio-Nanotechnology
 - Tissue Engineering Science
 - Human/Machine or Human/Computer Interaction
 - Psychology and Neurosciences
 - Hospital of the Future
 - Mobile Communications and Remote Sensors
-

IX. U.S. ARMY AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER (AMRDEC)

A. AVIATION AND MISSILE RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER (AMRDEC), REDSTONE ARSENAL, AL

SBIR POC: Otho H. Thomas, JR., 256-842-9227, otho.thomas@us.army.mil

MISSION: To plan, manage and conduct research, exploratory and advanced development, and provide one-stop life cycle engineering, technical, and scientific support for aviation and missile weapon systems and their support systems, UAV platforms, robotic ground vehicles, and all other assigned systems, programs and projects.

AREAS OF INTEREST:

- Systems Simulation And Development Directorate
 - aeroballistics
 - aerodynamics
 - system performance
 - statistical data and error analysis
 - system simulation
 - simulation theory and technology
 - distributed real-time simulation
 - virtual environment simulation
 - analog/hybrid computer & interface system
 - math model verification and validation techniques
 - real-time time-critical simulation technology
- Weapons Development & Integration Directorate
 - Sensors, Guidance & Electronics Technologies
 - Fiber Optics/MEMS
 - Fiber Optic Monitoring and Diagnostics Systems
 - Fiber Optic Data Link for Unmanned Systems
 - Miniature Sensor for Navigation, Health Monitoring and Diagnostics (MEMS)
 - Fiber Winding and Payout
 - Fiber Optic Gyros
 - Inertial Systems
 - GPS-Receivers/Antennas, Jamming Analysis
 - Inertial Measurement Units
 - Missile Laying and Aiming
 - Transfer Alignment
 - Accelerators
 - Controls
 - Electro-mechanical, Pneumatic, Hydraulic
 - Reaction, Thrust Vector Systems
 - Missile Launch Systems
 - Missile Power Supplies
 - Guidance/Control Theory and Techniques
 - Modern/Classical, Linear/Non-Linear, Digital and Optimal Control Techniques
 - Missile Autopilot Design and Evaluation
 - Precision Guidance with GPS Aided Inertial
 - Terminal Guidance Integration
 - Guidance Algorithms
 - Imaging Autotrackers
 - Missile Tracking Algorithms
 - Autotracker Processors
 - Fire Control Trackers
 - Fly Over Homing
 - Terminal Aimpoint Tracking

IX. U.S. ARMY AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER (AMRDEC)
(CONTINUED)

SBIR POC: Otho H. Thomas, JR., 256-842-9227, otho.thomas@us.army.mil

- Weapons Development & Integration Directorate (continued)
 - Propulsion and Structures Technologies
 - Propulsion
 - Solid, Liquid, and Air breathing Propulsion Technology
 - Propellants
 - Insensitive Munitions
 - Ignition Systems
 - Stockpile Reliability
 - Energetics Demilitarization and Reuse
 - Inert Components (Nozzles, Liners, Insulation and Cases)
 - Energy Management
 - Structures
 - Structural Analysis
 - Composite Structures
 - Warhead/Fuze Research
 - Robotics
 - Corrosion Prevention and Control
 - Active Protection Systems and Counter-APS
 - Advanced Kinetic Energy
 - Tactical Missile Launchers
 - Future Fighting Systems and Weapon Integration
- Advanced Science and Technology Directorate
 - Focal Point for Training and Doctrine Command Interfaces
 - Proof of Principle Experimentation
 - Initial Prototype/Integration
 - Advanced Concepts
 - Program Executive Offices/Project Managers Interface for Technology Transition and Insertion
 - Unmanned Systems
 - Army Transformation
 - Force Operating Capability Points of Contact
 - Army Technology Objectives Process
 - Program Objective Memorandum Planning
 - Databases
 - Army Science and Technology Plan
 - Technology Area Review and Assessment
 - Technology Reviews
 - Office of Research and Technology Applications
 - Technical Industrial Liaison Office
 - Small Business Innovation Research
 - Conferences
 - Cooperative Research and Development Agreements
 - Patents, Licenses, Intellectual Property
 - Memoranda of Agreement/Information Exchange Agreement/Data Exchange Agreements
 - Air Show Support
 - Database Management
 - Visits and Reviews (Senior National Representatives)
- Applied Technology Initiatives Directorate
 - Development and Integration Of Advanced Technologies for Army Missile Systems
 - Systems Engineering & Analysis Including use of Systems Engineering Tools [CORE, CRADLE, IDEF 0/1X/3, UML Modeling]

- Conduct Experiments, Demonstrations, And Analyses To Transition Developed Technologies To A Validation Phase Decision Point In The Acquisition Process

IX. U.S. ARMY AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER (AMRDEC)
(CONTINUED)

SBIR POC: Otho H. Thomas, JR., 256-842-9227, otho.thomas@us.army.mil

- Weapons Sciences Directorate
 - Lasers And Beam Weaponry
 - Nanoscience
 - Photonics And Optical Sciences
 - Chaos Control
 - Photonic Bandgap Materials
 - Multi-spectral dome materials
 - Quantum sciences
- Engineering Directorate
 - Producibility Engineering and Planning
 - Engineering Analysis
 - Engineering Support For Out Of Production Systems
 - Spare Parts Procurement/Supply Chain Management
 - Monitor Product Deliveries
 - Advanced Manufacturing Technologies (Processes Techniques, and Equipment) For Army Missile and Aviation Systems' Guidance/Propulsion, and Structures
 - Increased Productivity
 - Advanced Materials Processing and Fabrication Technologies
 - Non-Destructive Evaluation Technologies/Sensors
 - Manufacturing Research in Printed Circuit Boards and Microelectronics
 - Manufacturing Automation
 - Manufacturing Simulation
 - Enterprise Systems
 - Total Life Cycle Management (I.E. Develop, Upgrade, Rehost, Produce, and Sustain) For Test Program Sets (TPSS)
 - Directed Energy and Power (Batteries)
 - Soldering Technologies
 - Shelf Life/Reliability Of New Technologies
 - Logistics R&D
 - Prognostic (to include Mechanical/Electronics/Avionics)
 - Quality Engineering Technologies
 - Statistically Process Control
 - Production Line Inspection and Test Technologies
 - Availability/Obsolescence Management
 - Electronics Reliability
 - Electronics Technology Reliability
 - Manage, Staff and Operate the U.S. Army Prototype Integration Facility
 - Design, Development, Qualification, Fabrication, and Integration of Prototype and Production Weapon Subsystems and System Hardware Components
 - Rapid Response to Technical Problems through Agile Development and Rapid Acquisition, Prototyping, Manufacture, Integration and Fielding Warfighting, Homeland Defense and Other Federal Systems
 - Wireless Technologies (to include diagnostics and sensors)
 - Diagnostics
 - Health Monitoring Systems
 - Systems Engineering/Systems Engineering Management tools and techniques
 - Value Engineering/Life Cycle Cost Reduction
 - Spare Parts Engineering and Validation
 - Industrial Base Analysis
 - Health Usage and Monitoring Systems
 - Condition-Based Maintenance Systems
 - Reliability Technologies Improvement projects

IX. U.S. ARMY AVIATION & MISSILE RESEARCH, DEVELOPMENT & ENGINEERING CENTER (AMRDEC)
(CONTINUED)

B. AVIATION AND MISSILE RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER (AMRDEC), FT. EUSTIS, VA, MOFFETT FIELD, CA.

SBIR POC: PJ Jackson, 757-878-5400, pj.jackson1@us.army.mil

MISSION: Transition critical technologies that enhance and sustain Army aviation as the premiere land force aviation component in the world.

VISION: Be recognized as the leader within the Department of Defense (DoD) for the research, development, and engineering of rotorcraft and tactical Unmanned Aerial Vehicle (UAV) systems and technology; known for the quality of our work and excellence of our people.

OBJECTIVES:

- Develop, demonstrate, and apply critical technologies that enhance the capability, affordability, readiness, and safety of DoD aviation systems.
- Provide quality and timely engineering services and rapid prototyping support to army program executive offices, us special operations command, and other customers.
- Support worldwide contingency operations through the expedited fabrication, application, and support of innovative material solutions.

AREAS OF INTEREST:

- Advanced Materials Applications For Rotorcraft Engines And Drives
 - Aeromechanics
 - Computational Fluid Dynamics
 - Cockpit Information Management Systems
 - Flight Controls/Vehicle Management Systems
 - Human Systems Interface
 - Reliability, Maintainability Issues
 - Safety And Survivability Issues For Rotorcraft
 - Structures And Materials
 - System Integration For Rotorcraft
 - Turboshift Engine Technology For Rotorcraft
 - Advanced Rotor/Airframe Design Concepts
 - Smart Materials Applications To Rotor And Airframe Design
 - Cargo Handling Systems
 - Ground Support Equipment For Rotorcraft
-

X. SPACE AND MISSILE DEFENSE COMMAND (SMDC), HQ ARLINGTON, VA
SBIR POC: Denise Jones, 256-955-0580, Denise.Jones@smdc.army.mil

MISSION

SMDC/ARSTRAT conducts space and missile defense operations and provides planning, integration, control and coordination of Army forces and capabilities in support of US Strategic Command missions (Strategic Deterrence, Integrated Missile Defense, Space Operations, and Cyberspace Operations); serves as the Army specified proponent for space, high altitude, and ground-based midcourse defense; serves as the Army operational integrator for global missile defense; and conducts mission-related research and development in support of Army Title 10 responsibilities.

High Power Microwave (HPM) Technologies

- HPM munitions ranging in various sizes,
- New pulsed power technologies (explosive and non-explosive),
- Power conditioning components,
- Sealed vacuum HPM tubes,
- Efficient broad band electrically small and large antennas with high power handling capability, specifically, compact and electrically small antennas,
- Rugged efficient HPM tubes with a long shelf life,
- Advance ferroelectric and ferromagnetic materials,
- Efficient closing and opening switches,
- Inexpensive expendable broadband diagnostics,
- Efficient Marx generators with rapid chargers Rugged flux compression generators.

Laser Directed Energy Technologies

- Laser Directed Energy (DE) Sources, Concepts, and Applications
- Advanced Solid State Laser (SSL) concepts that reduce cost, weight, and complexity while improving efficiency, reliability, and eye safety
- Advanced solid state laser component technologies that improve laser system performance
- Advanced Laser pump sources that increase the current state of the art in efficiency, high brightness, reliability, operating temperature, and reduces production costs
- Beam control components and techniques that reduce weight, cost, and complexity with improved engagement ranges of weapon systems
- Advanced beam control and beam combining concepts and technologies that improve laser DE system efficiency, extends effective range, and improves overall system performance
- Directed Energy lethality and propagation testing and support technology and equipment (sensors) to provide validated data to laser DE modeling and simulations and war gaming
- Compact pulsed power concepts and technologies

Lightweight Nanosat Subsystem Technologies

- Attitude determination and control system
- Electrical power conditioning subsystem
- Intersat communications system
- Lidar payload
- Electrical power subsystem

Counter IED Systems and Forensics

- HPM Sources
- HPM Detectors
- Compact RF Sources
- USB Computer Security
- DNA Technologies
- Fast Information Correlation Engines
- Explosives Detection
- Explosives Identification
- Detonator Identification
- Trusted Path Technologies

- Predictive HPM Effects
- RF and EM modeling

Cyberspace Technologies

- Trusted Information Exchange
 - Space Communication Network Security
 - Global Supply Chain Security and Risk Management
-

XI. SFC PAUL RAY SMITH SIMULATION AND TRAINING TECHNOLOGY CENTER (STTC), ORLANDO, FLORIDA

SBIR POC: Thao Pham, 407-384-5460, phuongthao.pham@us.army.mil

MISSION: Provides simulation expertise, research and transition of simulation enabled learning technologies for training, test and training instrumentation, mission planning and mission rehearsal systems.

AREAS OF INTEREST:

- **Real-Time Human-In-The-Loop Simulation:** This area includes technologies that support training, learning and mission rehearsal. It includes human, agent, and team interfaces, sensory stimulation, and tracking technologies for systems of systems approach to linked, distributed, or embedded systems
 - **Behavioral Representation:** Artificial intelligence technologies are widespread among the STTC's missions (embedded training, medical training, agent simulations, advanced learning environments, etc.) and include computer-generated forces, intelligent tutoring systems, composable behavior technologies, and simulation management technologies.
 - **Shared Simulation Environments:** This area includes test and training environments for missions like urban operations, advanced learning, embedded training, and distributed development. It includes technologies for the rapid construction of urban environments and multi-elevation structures. It includes cross-domain technologies like augmented reality and architectures and standards for distributed simulation environments.
 - **Support Training Transformation (T2):** Providing simulation technologies for a capabilities-based learning environment for the department of defense in support of national security requirements.
 - Joint Knowledge Development and Distribution Capability
 - Joint National Training Capability
 - Joint Assessment and Enabling Capability
-

XII. U.S. ARMY TANK AUTOMOTIVE RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER (TARDEC)

SBIR POC: Jim Mainero, 586-282-8646, james.mainero@us.army.mil
Martin Novak, 586-282-8730, martin.j.novak@us.army.mil

The U.S. Army Tank-Automotive Research, Development and Engineering Center (TARDEC), is the nation's laboratory for advanced military automotive technology. Headquartered at the Detroit Arsenal, Warren, MI, TARDEC is located in the heart of the world's automotive capitol.

MISSION: Provide full service life cycle engineering support to our TACOM LCMC Customers (PEO GCS, PEO CS&CSS, ILSC) and PM FCS (BCT), to develop and integrate the right technology solutions to improve the effectiveness of the current force and realize the superior capability of the future force to facilitate Army transformation.

VISION: Be the first choice of technology and engineering expertise for ground vehicle systems and support equipment – today and tomorrow.

TARDEC is responsible for engineering support to more than 2,800 Army systems and many of the Army's and DoD's top joint warfighter development programs:

PRODUCT LINES

- Combat and Tactical Vehicles
- Logistics Equipment
- Water Generation and Purification
- Fuels and Lubricants
- Military Bridging
- Fuel and Water Storage, Distribution and Quality Surveillance Equipment
- Countermine Equipment

TECHNOLOGY THRUSTS

- Vehicle Survivability Systems
- Water Generation and Purification
- Unmanned Vehicle Developments
- Advanced Vehicle Concepts
- Fuel and Lubricant Research
- Crew Station Integration and Automation
- Software/Vetronics
- Next Generation Software
- Hybrid-Electric Power
- Propulsion
- Fuel Cells
- Collaborative Environments
- Physical Prototyping
- Advanced Materials
- Analytical and Physical Simulation
- High Performance Computing

XII. U.S. ARMY TANK AUTOMOTIVE RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER (TARDEC) (CONTINUED)

**SBIR POC: Jim Mainero, 586-282-8646, james.mainero@us.army.mil
Martin Novak, 586-282-8730, martin.j.novak@us.army.mil**

STRATEGIC TECHNOLOGY AREAS

- Unmanned Ground Vehicle Robotics
 - Power & Energy
 - Advanced Power Systems
 - Energy Storage
 - Fuel Strategy
 - Vehicle Electronics
 - On-board Prognostics/Diagnostics
 - Condition-based Maintenance
 - Logistics
 - Leverage industry technologies to enhance TARDEC programs
 - Lifecycle Data Management
-

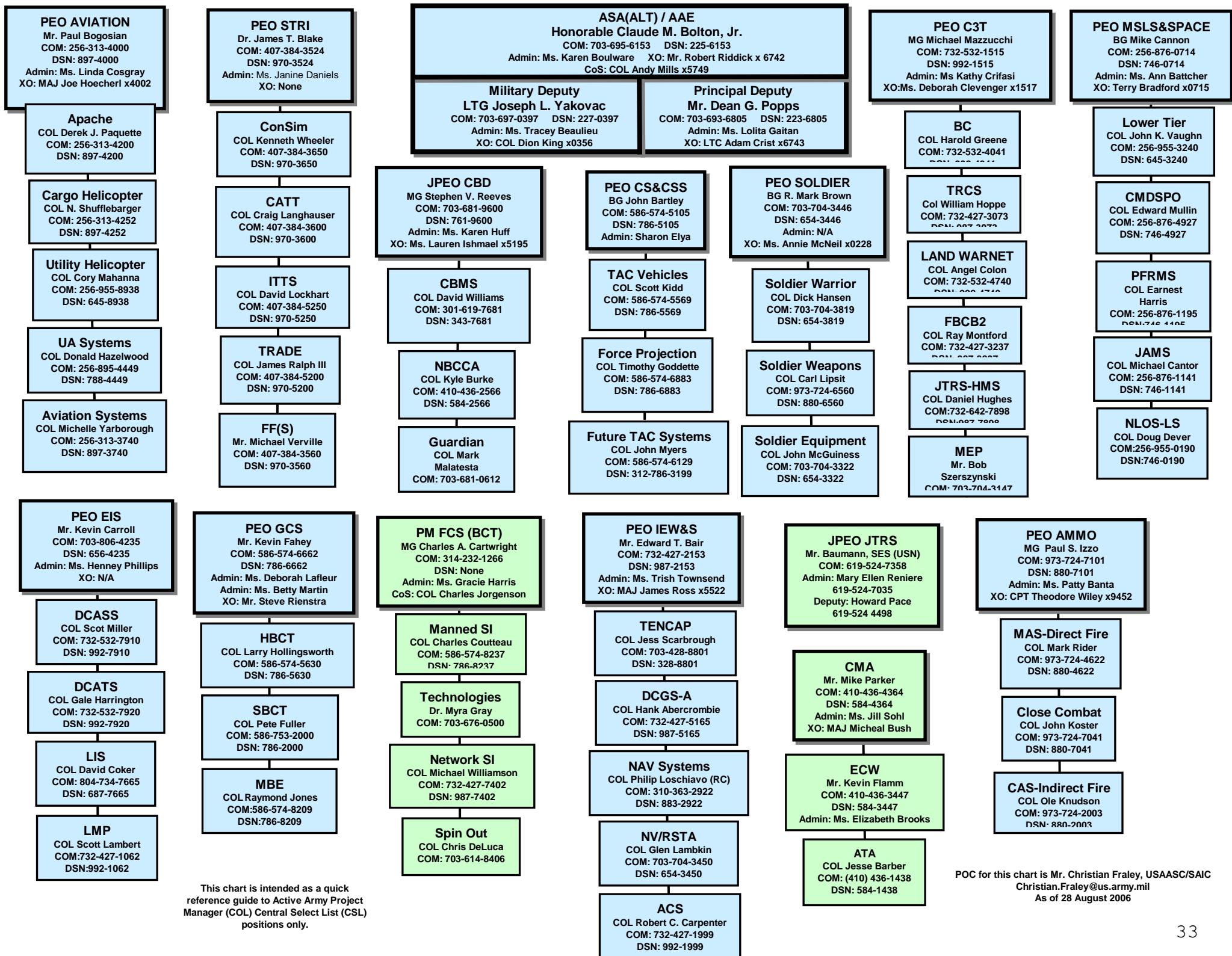
XIII. U.S. ARMY TEST AND EVALUATION COMMAND (ATEC), ABERDEEN PROVING GROUND, MD

SBIR POC: Nancy Weinbrenner, 410-278-5688, nancy.b.weinbrenner@us.army.mil
Michael Orlowicz, 410-278-1494, michael.orlowicz@us.army.mil

MISSION: The U.S. Army Developmental Test Command (DTC) is the developmental test arm of the U.S. Army Test And Evaluation Command (ATEC). DTC is the Army's premier material developmental testing organization for weapons and equipment. DTC offers a full range of test services, including providing unbiased test data on the technical feasibility of early concepts, determining systems performance and safety, assessing technical risks during system development, confirming designs, and validating manufacturers' facilities and processes at both system and component level. Its testing services are extended to all of DoD, other federal agencies, state and local governments, foreign and allied governments and, private industry.

AREAS OF INTEREST:

- Provides developmental testing for Army systems in all environments, provides system safety verification prior to test/use by the soldier, develops test technology, and manages 11 test centers/sites.
 - Aberdeen test center, Aberdeen Proving Ground, MD -- direct fire, live fire, vehicles, small arms, general equipment, and individual equipment testing
 - Redstone Technical Test Center, Redstone Arsenal, AL – small missiles, rockets, guidance systems, lightning effects, high explosive warhead & fuze testing
 - Aviation Technical Test Center, Fort Rucker, AL -- aircraft systems and airworthiness testing
 - White Sands Missile Range, NM – missile, ballistic missile defense, nuclear effects, and electronic warfare systems testing
 - WSMR-Electronic Proving Ground & Satellites
 - Electronic Proving Ground, Fort Huachuca, AZ – Command, Control, & Communications (C3) And Electromagnetic Effects Testing
 - EPG Fort Lewis Field Office, Fort Lewis, WA -- Software Testing
 - EPG Fort Hood Field Office, Fort Hood, TX -- C3i Testing
 - Dugway Proving Ground, UT -- Chemical/Biological Defense Systems Testing
 - YUMA Proving Ground & Satellites, Yuma, AZ -- Indirect Fire, Air Delivery, Air Armaments, Mines/Countermines, And Natural Environments Effects Testing
 - Cold Regions Test Center, Fort Greeley, AK – Cold Weather Effects Testing
 - Tropic Test Site, HI – Hot/Wet Environmental Effects Testing
 - Test Technology Development, Acquisition, And Sustainment
-



XIV. PEO AMMUNITION

SBIR POC: Vince Matrisciano, 973-724-2765, vince.matrisciano@us.army.mil

A. PM CLOSE COMBAT SYSTEMS

MISSION: Maintaining freedom to move on the battlefield is mission-essential for Army ground forces. The vision and mission of PM Close Combat Systems is to ensure that soldiers have this capability by developing and supporting technologically advanced in networked munitions, countermine, and demolitions, protect force, explosive ordnance disposal equipment, grenades, pyrotechnics, and shoulder launched munitions.

AREAS OF INTEREST: Technologies Associated With The Following:

- Networked Munitions
- Countermine Systems And Explosive Ordnance Disposal Equipment
- Demolitions
- Non-Lethal Systems And Munitions
- Grenades
- Pyrotechnics
- Shoulder Launched Munitions

B. PM COMBAT AMMUNITION SYSTEMS–INDIRECT FIRE

MISSION: PM Combat Ammunition Systems (PM CAS) performs life-cycle management of gun-launched indirect fire munitions, mortar weapons and mortar fire control systems including related fuzes, fuze setters, propellants, explosive fills, software, hardware and electronics. Life-cycle management includes development, integration, test, production, remanufacturing, and sustainment. PM CAS' vision is to deliver conventional and leap-ahead munitions combat power to warfighters, giving them the materiel edge over our nation's real and potential adversaries.

AREAS OF INTEREST: Technologies Associated With The Following:

- Precision-Guided Munitions
- Smart Munitions
- Conventional Munitions
- Mortar Weapon Systems
- Mortar Fire Control Systems
- Fuzes And Fuze Setters

C. PM JOINT SERVICES

MISSION: The vision of PM joint services (PM JS) is to create an acquisition "pipeline" that rapidly provides the warfighter with conventional ammunition. This necessitates an acquisition approach that delivers rapid, affordable conventional ammunition and is flexible, responsive and proactive while improving the health of the industrial base and meets and exceeds the services expectations. Continual improvement to the customers total munitions delivery time, including acquisition and production cycle time, is an overarching objective of PM JS.

AREAS OF INTEREST:

- Procurement Of Other Services' Unique Conventional Ammunition (e.g., Bombs, Pyrotechnics, Propellants, Navy Gun Ammo, Explosives)
- Demilitarization of Conventional Ammunition
- Execution Of SMCA Industrial Base Functions

XIV. PEO AMMUNITION (CONTINUED)

SBIR POC: Vince Matrisciano, 973-724-2765, vince.matrisciano@us.army.mil

D. PM MANEUVER AMMUNITION SYSTEMS–DIRECT FIRE

MISSION: The mission of PM Maneuver Ammunition Systems (PM MAS) is to equip warfighters, mounted and dismounted, with all calibers of direct fire ammunition for the Army's current, Stryker, and future forces. Under the single manager for conventional ammunition responsibilities, PM MAS also procures ammunition for the Navy, Air Force, and Marines. PM MAS provides ammunition for ground combat platforms, helicopters, ships, and high performance aircraft. The PM does this through life cycle program management of small, medium, and large caliber ammunition to include smart munitions.

AREAS OF INTEREST: Technologies Associated With The Following:

- Small Caliber
 - Medium Caliber
 - Large Caliber
 - Smart Munitions
-

XV. PEO AVIATION

SBIR POC: Dave Weller, 256-313-4975, david.weller1@us.army.mil

A. PM APACHE ATTACK HELICOPTER

MISSION: PM Apache Attack Helicopter is responsible for planning, directing, and controlling all phases of research, development, procurement, production, distribution, logistic support, fielding, and fiscal and budget management required for the AH-64A Apache and AH-64D Longbow Advanced Attack Helicopters.

B. PM AVIATION SYSTEMS

MISSION: PM Aviation Systems (PM AS) is charged with responsibility for the program life cycle management for all legacy scout attack helicopters; fixed wing aircraft; Air Traffic Control (ATC) Systems; Aviation Ground Support Equipment (AGSE); and Aviation Mission Equipment (AME). In addition, other responsibilities of PM include operations of the Army's Aviation Corrosion Control and Non-Destructive Testing Centers Of Excellence (COE) within AGSE, and the development, coordination, and management of all aviation digitization programs.

C. PM CARGO HELICOPTER

MISSION: The mission of PM Cargo Helicopter is to establish and maintain a dynamic learning organization which provides the warfighters with affordable world class heavy lift cargo helicopters and related service which are continually improved to meet user needs while balancing life cycle cost reductions with increases in operational readiness. Pm Cargo Helicopter is responsible for the life cycle planning, direction, execution, and control of tasks and designated associated resources involved in deployment, qualification, test, production, sustainment, distribution, and logistics support of the worldwide CH-47 fleet.

D. PM UNMANNED AERIAL VEHICLE SYSTEMS

MISSION: The mission of PM Unmanned Aerial Vehicle Systems (PM UAVS) is to provide a total Army perspective for the life cycle management of the Army's Unmanned Aerial Vehicle (UAV) program including development, acquisition, testing, systems integration, product improvements, production, fielding, and logistical support. PM UAVs directly supports the core mission of army unmanned aerial vehicles to provide tactical commanders near-real time, highly accurate, reconnaissance, surveillance and target acquisition. This mission is growing to include weaponization, communications relay, specialty payloads, small unmanned aerial vehicles, and the linkage to manned aircraft.

E. PM UTILITY HELICOPTERS

MISSION: THE UH-60 is the Army's utility helicopter. The IS Black Hawk used for multiple combat missions in support of the Joint Force Commander. Its primary mission, air assault, transports infantry soldiers and light artillery directly into battle positions. In its general support role, the Black Hawk is used to move personnel and cargo across all echelons of the battlefield, from the front lines to the rear areas. The UH-60 will also serve as the host aircraft for the new Army Airborne Command and Control System (A2C2S). In special operations, the MH-60 platform is used as both an assault and armed defensive aircraft. The UH-60 is interoperable with joint forces, and is in use in the Navy and Air Force.

XVI. JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD)

SBIR POC: Larry Pollack, 703-767-3307, larry.pollack@dtra.mil

Joint Science and Technology Office for Chemical and Biological Defense (JSTO-CBD)

The Joint Science and Technology Office for Chemical and Biological Defense (JSTO-CBD) provides the management for the Science and Technology component of the Chemical and Biological Defense Program (CBDP). Technologies developed under the SBIR program have the potential to transition to the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) when the appropriate level of technology maturity has been demonstrated. The JSTO-CBD Science & Technology programs and initiatives are improving defensive capabilities against Chemical and Biological Weapons.

A. JPM BIOLOGICAL DEFENSE

MISSION: The JPM-Biological Defense (JPM-BD) mission is to develop, produce, field and sustain world-class biological defense technology and equipment for the Joint Services. In partnership with the civilian sector, academia and industry, the JPM-BD will ensure that its biological defense products and services are developed at the best possible time, and can be sustained in operation at the lowest life cycle cost.

JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDs): To detect, identify, sample, collect and communicate the presence of biological warfare agents to enhance the survivability of U.S. Forces.

JOINT BIOLOGICAL STANDOFF DETECTION SYSTEM (JBSDs): To provide a biological detection network capable of near real time detection and warning, theater wide, to limit the effects of biological agent hazards at the tactical and operational levels of war.

JOINT PORTAL SHIELD (JPS): Provide Combatant Commanders a "smart" network of biological detection sensors to provide force protection, and protect high value fixed site assets (air and port facilities).

B. JPM CHEMICAL BIOLOGICAL MEDICAL SYSTEMS

MISSION: The Chemical Biological Medical Systems Joint Project Management Office (**CBMS-JPMO**) is responsible for the development, procurement, fielding, and sustaining of premier medical protection and treatment capabilities against chemical and biological warfare agents. Our products are all submitted through the U.S. Food and Drug Administration (FDA) licensing or approval processes. The CBMS-JPMO is comprised of a headquarters and support element and two Joint Product Management Offices: the Joint Vaccine Acquisition Program (JVAP) and the Medical Identification and Treatment Systems (MITS).

JOINT VACCINE ACQUISITION PROGRAM (JVAP): The mission of the Joint Vaccine Acquisition Program (**JVAP**) is to develop, produce and stockpile FDA licensed vaccine products to protect the war fighter against biological warfare agents. JVAP consolidates the Department of Defense's efforts for the advanced development, testing, FDA licensing, production and storage of Biological Defense vaccines.

- Anthrax Vaccine Adsorbed (AVA)
- Plague Vaccine
- Recombinant Botulinum Bivalent (AB) Vaccine (rBot AB)
- Venezuelan Equine Encephalitis (VEE) V3526 Vaccine
- Vaccinia Immune Globulin (VIG), Intravenous

MEDICAL IDENTIFICATION AND TREATMENT SYSTEMS (MITS): The Medical Identification and Treatment Systems (**MITS**) centrally manages the development, acquisition and fielding of products used for the prophylaxis, treatment, and diagnosis of chemical and biological warfare agent exposure in U.S. Service members. MITS products range from specific hardware devices which will enable medical personnel to diagnose specific biological warfare agent exposure, to drugs which will prevent or mitigate the actions of chemical or biological agents.

- Advanced Anticonvulsant System (AAS)
- Antidote Treatment - Nerve Agent, Autoinjector (ATNAA)
- Convulsant Antidote for Nerve Agents (CANA)
- Critical Reagents Program (CRP)
- Joint Biological Agent Identification and Diagnostic System (JBAIDS)

- Medical Aerosolized Nerve Agent Antidote (MANAA)
- Skin Exposure Reduction Paste Against Chemical Warfare Agents (SERPACWA)

XVI. JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD) (CONTINUED)

SBIR POC: Larry Pollack, 703-767-3307, larry.pollack@dtra.mil

C. JPM COLLECTIVE PROTECTION

MISSION: If units are attacked or are forced to occupy or traverse Chemical/Biological (CB) contaminated environments, individual and collective protection systems provide the warfighter life-sustaining and continued operational capabilities. Individual protection equipment includes protective masks, suits, boots, and gloves.

Collective protection equipment includes two general categories: stand-alone shelters and integrated systems that provide contamination-free, environmentally-controlled surroundings for personnel to perform their missions. Collective protection, i.e., overpressure, can be applied to mobile and fixed command posts, medical facilities, rest and relief shelters, buildings/fixed sites, vehicles, aircraft, and ships.

MOBILE COLLECTIVE PROTECTION:

- M2A2 Air Purifier and M1A1-19 Precleaner and Particulate Filter
- M8A3 Gas-Particulate Filter Unit
- M13A1 Gas Particulate Filter Unit (GPFU)
- M14 Gas-Particulate Armored Ambulance Filter Unit

TRANSPORTABLE COLLECTIVE PROTECTION:

- Joint Expeditionary Collective Protection (JECF)
- Chemical Biological Shelters (CBPS)
- Collective Protection System for the Modular General Purpose Tent System (MGPTS)
- Collectively Protected Small Shelter System (CP-SSS)
- M20 Simplified NBC Collective Protection Equipment
- M20A1 Simplified Collective Protection Equipment (SCPE)
- M28 Collective Protection Equipment (CPE)
- Collectively Protected Field Hospital Program:
- Modular Collective Protective Equipment:

FIXED COLLECTIVE PROTECTION:

- M49 Fixed Installation Filter

SHIPBOARD COLLECTIVE PROTECTION:

- Shipboard Collective Protection Systems (CPS)
- Collective Protection System (CPS) Backfit Program

FILTERS:

- Hermetically Sealed Filter Canister (200 CFM)
- M12A2 Gas Filter (12 CFM)
- M13 Particulate Filter (12 CFM)
- M18A1 Gas Filter (10 CFM)
- M19 Particulate Filter (20 CFM)
- M48A1 Gas Particulate Filter
- M98 Gas-Particulate Filter

PRODUCT IMPROVEMENT PROGRAM

- Joint Collective Protection Equipment (JCPE)

XVI. JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD) (CONTINUED)

SBIR POC: Larry Pollack, 703-767-3307, larry.pollack@dtra.mil

D. JPM DECONTAMINATION

MISSION: In the event that contamination cannot be avoided, personnel and equipment must be decontaminated in order to reduce and/or eliminate hazards after chemical and biological agent employment. A family of decontaminants and applicators, equipment, and procedures are under development for decontaminating mission critical areas within large area ports, airfields, and other fixed sites, which may be targeted for persistent agent contamination. Decontamination systems provide the Joint Force a regeneration capability for units that become contaminated. Modular decontamination systems have been developed to provide decontamination units with the capability to tailor their equipment to support specific missions.

JOINT SERVICE SENSITIVE EQUIPMENT DECONTAMINATION (JSSED): Neutralize the effects of chemical and biological agents on sensitive equipment.

SORBENT DECONTAMINATION SYSTEMS (SDS): Replace the M11/M13 DAP and associated DS2 used in Operator Spraydown (Immediate Decon) with a reactive neutralizing sorbent powder.

JOINT SERVICE FAMILY OF DECONTAMINATION SYSTEMS (JSFDS): To develop chemical and biological decontamination/application systems for equipment, wounded and non-wounded personnel.

JOINT PLATFORM INTERIOR DECONTAMINATION (JPID): Joint Force personnel will employ JPID to conduct immediate, operational and thorough decontamination of vehicles, mobile maintenance facilities, aircraft and shipboard interiors, to include sensitive equipment that cannot be removed, in both CBRN hostile and non-hostile environments.

E. JPM GUARDIAN

MISSION: The mission of JPM Guardian is to: provide an effective Chemical, Biological, Radiological, and Nuclear (CBRN) protection, detection, identification and warning system for installation protection, ensure integration of CBRN network with existing Command, Control, Communications, Intelligence (C3I) capabilities to provide effective information management, provide a capability that will allow for rapid restoration of critical installation operations, protect DoD civilians, contractors and other persons working or living on U.S. Military installations and facilities, and equip and support Coalition Support Teams, Installation Support Teams, Regional Response Teams and recon/decon teams.

INSTALLATION PROTECTION PROGRAM (IPP): Constitutes one of DoD's first efforts to field a full spectrum of NBC installation protection capabilities designed as a family of system (FoS) to military installations and DoD-owned or leased facilities.

- **Unified Command Suite:** The Unified Command Suite (UCS) vehicle is a self-contained, stand-alone C-130 air mobile communications platform intended to provide both voice and data communications capabilities to Civil Support Team (CST) Commanders. The UCS consists of a combination of Commercial off the shelf (COTS) and existing Government off the shelf (GOTS) communications equipment (both secure and non-secure data) to provide the full range of communications necessary to support the CST mission. It is the primary means of reach back communications for the Analytical Laboratory System (ALS) for the CSTs, and acts as a command and control hub to provide a common operational picture for planning and executing an incident response.
- **Analytical Laboratory System:** The Analytical Laboratory System (ALS) is a C-130 air transportable system that uses commercial-off-the-shelf (COTS) equipment that can analyze Chemical Warfare (CW) agents, Toxic Industrial Materials (TIM), Toxic Industrial Chemicals (TIC) and Biological Warfare (BW) agents. The ALS has the capability of establishing communications through the Unified Command Suite (UCS) to local, state, federal laboratories and other Agencies for confirmatory analysis of suspect agent.

XVI. JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD) (CONTINUED)

SBIR POC: Larry Pollack, 703-767-3307, larry.pollack@dtra.mil

F. JPM INDIVIDUAL PROTECTION

MISSION: The Chemical Biological Defense Program (CBDP) is pursuing mask technologies that provide greater user comfort, reduce breathing resistance, and improve compatibility with combat weapon systems; and suit technologies that will result in lighter, less burdensome, but equally protective next generation suits for ground and aviation personnel. Also, the CBDP pursues technology advances that improve generic Chemical Biological protective filters and fans, and advances that reduce weight, volume, cost, logistics, and manpower requirements.

PROTECTIVE SUITES:

- Joint Service Lightweight Integrated Suit Technology (JSLIST) Ensemble
- Joint Protective Aircrew Ensemble (JPACE)

PROTECTIVE MASKS:

- XM52 Joint Services Chemical Environment Survivability Mask (JSCESM)
- XM50/51 Joint Services General Purpose Mask (JSGPM)
- M40/42 Series Mask Program
- M45 Mask
- M48 Chem Bio Apache Aviator Mask
- Joint Services Aircrew Mask (JSAM)
- Aircrew Eye Respirator Protection (AERP)
- A/P22P-14V Respirator Assembly (AP22P)

PROTECTIVE MASK TESTERS:

- Joint Services Mask Leakage Tester (JSMLT)
- M41 Protection Assessment Test System (PATS)

PROTECTIVE BOOTS & SOCKS:

- Multipurpose Overboot Program (MULO)
- Alternative Footwear Solutions Program (AFS)
- Multipurpose Protective Sock Program (MPS)

PROTECTIVE GLOVES:

- Joint Block 1 Glove Upgrade Program (JB1GU)
- Joint Block 2 Glove Upgrade Program (JB2GU)

G. JPM INFORMATION SYSTEMS

MISSION: The mission of the JPM Information Systems (JPM-IS) is to provide the information architecture and applications for shaping the battle space against the chemical and biological threat. The JPM-IS provides the Warfighter with integrated early warning capability, an accredited hazard prediction model, state-of-the-art consequence management, and course of action analysis tools.

JOINT EFFECTS MODEL (JEM): Provide a single, validated capability to predict and track Nuclear, Biological, Chemical (NBC) and Toxic Industrial Chemical/Material (TIC/TIM) events and effects.

JOINT OPERATIONAL EFFECTS FEDERATION (JOEF): Joint service program endorsed by the DoD that provides an operational requirements modeling and simulation system to enable warfighters and war planners to accurately predict chemical/biological environment effects on personnel, equipment and operations.

THE JOINT WARNING AND REPORTING NETWORK (JWARN): Provide the Joint Forces with a comprehensive analysis and response capability to minimize the effects of hostile Nuclear, Biological, and Chemical (NBC) attacks as well as accidents and incidents.

XVI. JPEO CHEMICAL BIOLOGICAL DEFENSE (CBD) (CONTINUED)

SBIR POC: Larry Pollack, 703-767-3307, larry.pollack@dtra.mil

H. JPM NUCLEAR, BIOLOGICAL AND CHEMICAL CONTAMINATION AVOIDANCE

MISSION: The Chemical Biological Defense Program pursues technologies incorporating and integrating standoff and early warning; reconnaissance; biological and chemical point detection; and information processing. The technology focus is on increased detection sensitivity, lower detection thresholds, specificity across the evolving spectrum of threat agents, reduced false alarm rates, and integration of detectors into various mapping and communication networks to provide common warning and reporting to the joint force.

PRODUCT DIRECTOR BATTLEFIELD MANAGEMENT SYSTEMS: Provide the Warfighter with a sensor connectivity, analysis, and warning & reporting capability that will satisfy NBC Suite requirements for combat platforms; provide the Joint Forces with a comprehensive analysis and response capability to minimize the effects of hostile NBC attacks or accidents/incidents; provide early warning and hazard prediction to protect the United States against CB events; provide the data management infrastructure needed to ensure interoperability across CBRN Defense Programs; and, provide CBRN material and development information to both the FCS and OFW programs. Ensure proper integration of future CBRN capabilities as technologies mature.

PRODUCT DIRECTOR CHEMICAL/NUCLEAR DETECTION: Develops, produces, tests and fields Chemical and Nuclear detection systems within the established cost schedule and performance parameters.

NBC RECONNAISSANCE AND OBSCURATION: Responsible for development, production, fielding and support of NBC Reconnaissance Systems that meets the need for enhanced survivability of U.S. forces against weapons of mass destruction (WMD). The systems provide an effective system to detect and identify, mark and report nuclear, biological and chemical hazards. The JPMO ensures that cost, schedule, performance and logistical supportability requirements are met. The JPMO currently supports the fielded Fox NBCRS and is developing NBC recon systems on HMMWV, LAV and Stryker platforms.

XVII. PEO COMBAT SUPPORT AND COMBAT SERVICE SUPPORT (CS&CSS)

SBIR POC: Robert Lapolice, (586) 282-8032, robert.lapolice@us.army.mil

A. PM FUTURE TACTICAL SYSTEMS (PROVISIONAL)

MISSION: PM Future Tactical System (PM FTS) leads the development and acquisition of future tactical systems in support of an expeditionary Army. The PM FTS vision is to provide the capabilities for the Army to adjust for changing conditions on the battlefield. Among the responsibilities of PM FTS are the Joint Light Tactical Vehicle (Provisional), the Long Term Armor Strategy (LTAS), Sets, Kits, Tools and Outfits (SKOT), and Test, Measurement and Diagnostic Equipment (TMDE).

AREAS OF INTEREST: Technologies Associated With The Following:

- Soldier Portable Sets (Battle Damage Assessment And Repair Kit, Explosive Ordnance And Disposal Kits, Individual Aircraft Armament Repair Tool Set)
- Modular Shop Sets (Standard Automotive Tool Set, Forward Repair System, Battalion Maintenance Set, Glass And Canvas Shop Set)
- Mobile Shop Sets (Body, Explosive Ordnance Disposal, Shop Equipment Welding, Woodworking Shop Set)
- Shop Support Equipment (Milling Machines, Welding Machines, Engine Lathes)
- Diving Equipment (Individual Swimmer Support Set, Divers Underwater Photo Support Set, Swimmer Support Set, Open Circuit Scuba Set)
- Test, Measurement, Diagnostic And Calibration Equipment
- Joint Light Tactical Vehicle Technologies

B. PM FORCE PROJECTION

MISSION: The PM Force Projection (PM FP) leads the acquisition component of a fully integrated team that develops, produces, fields and sustains world-class materiel solutions to meet current and future support requirements of the U.S. Military across the operational spectrum. The vision of PM FP is to be recognized as experts in commercial off the shelf & non-developmental items (CANDI) acquisition, logistics and technology.

AREAS OF INTEREST: Technologies Associated With The Following:

- Army Watercraft Systems (Landing Craft, Logistic Support Vessel)
- Construction And Materials Handling Equipment (Cranes, Construction Plants And Equipment, Graders And Scrapers)
- Force Sustainment Systems (Aerial Delivery Equipment, Shelter Systems, Field Feeding Systems)
- Development, Production, Fielding And Sustainment Of Petroleum And Water Systems
- Assured Mobility Systems (Bridging Technology, Mine Protected Vehicles)

C. PM TACTICAL VEHICLES

MISSION: PM Tactical Vehicles (PM TV) is committed to the goals and performance of a Joint Expeditionary Force, focusing on increasing the relevance and readiness of our Tactical Wheeled Vehicle (TWV) fleet, and ensuring that the best possible product is available to support the current force and beyond. The current TWV fleet is composed of the M915, PLS, HET, HEMTT, FMTV, and HMMWV family of vehicles, as well as all associated trailers. PM TV pursues technology that will improve the capabilities of the current fleet with the right products at the right time for the right price.

AREAS OF INTEREST: Technologies Associated With The Following:

- Tactical Vehicles (Armored Security Vehicles, Heavy Equipment Transporter System)
 - Trailers (Dolly Sets, Self-Load/Off-Load Trailer, Semi-Trailers)
-

XVIII. PEO COMMAND, CONTROL AND COMMUNICATIONS TACTICAL (C3T)

SBIR POC: Grace Xiang, 732-427-0284, qiping.xiang@us.army.mil

AREAS OF INTEREST: Technologies Associated With The Following:

- Tactical Satellite Ground And Commercial Terminal Programs
- Tactical And Portable Satellite Communications Terminals
- Software Programmable And Hardware Configurable Digital Radio Networking System
- Communications System For Reliable, Secure, And Seamless Video, Data, Imagery, And Voice Services
- Terrain Analysis, Image Maps, Battlefield Data And Topographic Information
- Generation Of A Variety Of Mobility, Visibility, And Special Purpose Tactical Decision Aids
- File Access, File Management, Database Access, And Database Management
- Forward Entry Devices
- Handheld C2 And Wireless Technologies
- Geo-Referencing Software
- Tactical Radios
- Area Common User System
- Network Operations Systems
- Antenna Technologies

A. PM BATTLE COMMAND

MISSION: The mission of PM Battle Command (PM BC) is to provide Integrated Battle Command capabilities, training, and support to the Joint Land Component Warfighter. The Army Battle Command System (ABCS) products include the All Source Analysis System (ASAS), the Battle Command Sustainment Support System (BCS3) which provides the sustainment support segment of ABCS, Digital Topographic Support System (DTSS) which provides the terrain segment of ABCS, the Fire Support C2 which provides the processing, analysis and dissemination of intelligence products in different functional areas (including targeting, collection management, electronic warfare/electronic countermeasures, imagery intelligence, combat/human intelligence, operational security, and weather), the Global Command and Control System - Army (GCCS-A) which provides ABCS linkage to joint and coalition forces, the Maneuver Control System (MCS) which provides the ABCS maneuver functionality, and the Common Software (CS) product office develops the Army's portion of Common Operating Environment (COE) software products and the common infrastructure and foundation products for ABCS command and control.

B. PD COUNTER ROCKETS, ARTILLERY, AND MORTARS / AMDCSS

MISSION: The Counter - Rockets, Artillery, and Mortars (C-RAM) system interconnects and coordinates Sensors with RAM Shape, Warning, Intercept, and Response systems through Command and Control. The systems then Sense RAM launches, Warn troops, Intercept and destroy the RAM threat in flight, coordinate Response to the Ram launch point, and collect data to enable the US commander to Shape the battle to deny enemy RAM attacks. The C-RAM system also monitors friendly ground and air assets, to preclude collateral damage during engagements.

C. PM FORCE XXI BATTLE COMMAND BRIGADE AND BELOW

MISSION: The mission of PM Force XXI Battle Command Brigade and Below (PM FBCB2) is to field a digital command and control system that provides battle command and situational awareness information from brigade down to the soldier/platform level. FBCB2 forms the principal digital command and control system for the army at brigade and below. Appliqué hardware, software and EBC software are integrated into the various platforms at brigade and below, as well as appropriate division and corps slices necessary to support brigade operations. All FBCB2/EBC systems are interconnected through a communications infrastructure called the tactical internet to exchange situation awareness data and conduct command and control.

XVIII. PEO COMMAND, CONTROL AND COMMUNICATIONS TACTICAL (C3T) (CONTINUED)

SBIR POC: Grace Xiang, 732-427-0284, qiping.xiang@us.army.mil

D. PM MOBILE ELECTRIC POWER

MISSION: The mission of PM Mobile Electric Power (PM MEP) is to provide a modernized standard family of mobile electric power generator sets for all services throughout the department of defense. Accomplish this mission through a coordinated inter-service effort to develop, acquire and support mobile electric power generator sets from small, 0.5kw manportable generator sets to large, 920kw prime power generating systems.

E. PDM NETWORK OPERATIONS – CURRENT FORCE

MISSION: The mission of PdM Network Operations – Current Force (PdM NETOPS-CF) is to provide network operations for the current force in accordance with applicable regulations and directives. Products include:

- Army Key Management Systems (AKMS) which enable frequency management and COMSEC management planners and operators to provide highly responsive and reliable secure communications operations at both theater/ tactical and strategic/ sustaining base levels;
- Integrated System Control (ISYSCON) which provides an automated, theater-wide system that Signal units can use to manage multiple tactical communications systems in support of battlefield operations;
- ISYSCON V4 which provides the Signal Officer, G6/S6, with a network management tool that will allow him to plan, disseminate, configure, initialize, monitor, and troubleshoot the Tactical Internet (TI) as well as the Tactical Operation Center (TOC), and Command Post (CP) Local Area Networks (LANs); and
- Joint Network Management System (JNMS) which provides a common, automated tool for network planning and management that will support the combatant commanders and their deployments.

F. NORTH EAST REGIONAL RESPONSE CENTER - SPECIAL PROJECT OFFICE

MISSION: The mission of North East Regional Response Center - Special Project Office (NRRC SPO) is to rapidly investigate, assess, architect, develop and provide standardized leading edge joint command, control, communications technologies to the Warfighter in support of the Global War On Terrorism and other Real World Contingency Operations.

XVIII. PEO COMMAND, CONTROL AND COMMUNICATIONS TACTICAL (C3T) (CONTINUED)

SBIR POC: Grace Xiang, 732-427-0284, giping.xiang@us.army.mil

G. PM TACTICAL RADIO COMMUNICATIONS SYSTEMS

MISSION: The mission of PM Tactical Radio Communications Systems (PM TRCS) is to provide Seamless Integrated Network Voice & Data Communications Systems and Life Cycle Support to enhance current US and Friendly Forces Combat Power.

- TOC/AMDCCS is responsible for the overall management of activities related to research, development, and acquisition of automated air and missile defense command and control (C2) systems to include FAAD C2 (ACAT 1C) and Air/Missile Defense Planning and Control System (AMDPCS) (ACAT III).
- PM TRCS Tactical Radios is responsible for the overall project management of assigned tactical radios which include single channel ground and airborne radio system (SINCGARS), enhanced position location reporting systems (EPLRS), multi-functional information distribution system (MIDS) or army link-16, combat survivor evader locator (CSEL), near term digital radio (NTDR), spitfire, high frequency radio (HF), army common user system modernization programs, Army over time modernization efforts and communications systems that support Stryker brigade combat teams 1-6.
- The Warfighter Communications Solutions (WARCOMS) Division is responsible for the management of assigned Transmission, Switching and Network Operations programs and equipment under the purview of PM TRCS.
- Common Hardware Systems (CHS) which is a full service hardware enabler of Battle command, control, and communications across Army and DoD systems.
- JNN Network commercial technology insertion will provide the Army with a high-speed and high capacity backbone communications network focused on rapidly moving information in a manner that supports commanders, staffs, functional units, and capabilities based formations. JNN Network enables commanders to plan, prepare, and execute multiple missions and task simultaneously.
- International Network & Communications Office (INCO) is Responsible for the project planning, execution, evaluation and reporting of the Improved Mobile Subscriber Equipment (IMSE) and as the Army Deputy to the Joint Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Po Sheng, or any similar system.
- Product Manager, Mounted Battle Command On The Move (MBCOTM) will enable the Tactical Commander to exercise effective Command and Control by moving to the Decisive Point on the battlefield with the same level of Situational Understanding heretofore available only within a fixed command post.

H. PM WARFIGHTER INFORMATION NETWORK–TACTICAL

MISSION: The mission of PM Warfighter Information Network – Tactical’s (WIN-T) is to integrate the communications network for the Objective Force (OF), optimized for offensive and Joint operations, while providing the Theater Commander in Chief (CINC) the capability to perform multiple missions simultaneously with campaign quality. It will be a framework, which will set standards and protocols for OF Infospheres while interfacing with and/or replacing equipment in legacy and interim forces. WIN-T is the OF high-speed and high capacity backbone communications network. The WIN-T program is the army's communications system for reliable, secure, and seamless video, data, imagery, and voice services that enable decisive combat actions. The WIN-T system will establish an environment in which commanders at all echelons will have the ability to operate with virtual staffs and analytical centers that are located at remote locations throughout the battlespace.

XIX. PEO ENTERPRISE INFORMATION SYSTEMS (EIS)

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The AcqBusiness Program provides Information Management capabilities that support Acquisition community needs for Acquisition data, data management services and Enterprise Business applications. These capabilities enable the consistent, effective and efficient conduct of the acquisition business. Planning and development of additional capabilities are ongoing with rapid prototyping, user involvement and rapid capability distribution as core elements of the program strategy.

A. ACQUISITION, LOGISTICS AND TECHNOLOGY ENTERPRISE SYSTEMS AND SERVICES (ALTESS)

Mission: ALTESS provides enterprise products and services to the Army Acquisition Executive (AAE), the Office of the Assistant Secretary of the Army for Acquisition, Logistics & Technology (ASA (ALT)) and the Acquisition Domain. The platform is a net-centric collaborative environment relevant to the Army and DoD acquisition domains. ALTESS also provides specialized information management products, support, solutions and services to other Army and DoD elements.

The Army Enterprise Systems Integration Program (AESIP) is the means by which the Army will integrate business functions by providing a single source for enterprise hub services, centralized master data management and business intelligence and analytics. The mission of AESIP (formerly known as Product Lifecycle Management Plus [PLM+]) has been expanded to provide cross-domain integration services for the Army's Business Mission Area.

B. ARMY HUMAN RESOURCE SYSTEM (AHRS)

Mission: The Army Human Resource System (AHRS) Product Management Office produces and establishes personnel management information systems for the active Army. AHRS facilitates the modernization of human resource advancement that includes support to the Army's personnel transformation by providing commanders with Web-based, interactive and accurate military personnel information to make decisions and effectively manage personnel. The AHRS overall goal is to consolidate some of the Army field level personnel systems in preparation for migration to the Defense Integrated Military Human Resource System (DIMHRS).

C. ARMY KNOWLEDGE ONLINE (AKO)

Mission: The Army Knowledge Online Project Office provides premiere enterprise Web portal functions, tools and services to the warfighter, institution and greater Army community, securely and reliably, anywhere and anytime. It enables transformation, efficiency and greater connectivity among soldiers, Army families and the Army workforce.

E. COMPUTING, HARDWARE AND ENTERPRISE SOFTWARE SOLUTIONS (PROGRAM (CHESS))

Mission: To support the Army's warfighter information dominance objectives by developing, implementing and managing information technology contracts that provide comprehensive hardware and software solutions with enterprise focused support services within the Army Knowledge Enterprise Architecture.

F. BIOMETRICS

New to the PEO EIS family, Product Director (PD) Enterprise Biometrics will be responsible for design, engineering, development, implementation and life cycle sustainment of a DoD enterprise biometric solution. 43

G. COMMAND CENTER UPGRADES/SPECIAL PROJETS OFFICE (CCU/SPO) PM NSC

Mission: CCU/SPO provides overall project management, engineering, acquisition, installation, integration and testing for the upgrade, modernization or relocation of Command, Control, Communications, and Computers Information System (C4IS) operations and systems at Army, Joint, and Combined Headquarters/Command Centers and other C4IS-intensive facilities. CCU/SPO not only has decades of experience in command center upgrades, but also has expertise in technical disciplines including voice, video, data, long-haul communications, telephone switching, software intelligence, audio-visual distribution briefing display systems and emergency response systems (911).

H. NETWORK SERVICE CENTER (NSC)

Mission: Acquire and sustain upgrades/modernization of Enterprise-enabled voice and data networks in support of the Installation Information Infrastructure Programs worldwide. PM NSC provides core data backbone and telecommunications infrastructure upgrades and modernizations to Army installations around the world. PM DCASS is the primary implementer of

the Installation Information Infrastructure Modernization Program (I3MP) and has recently assumed responsibility to provide the Goal 3 enterprise solution in support of the Army Knowledge Management (AKM) Strategic Plan.

I. DEFENSE COMMUNICATIONS AND ARMY TRANSMISSIONS SYSTEMS (DCATS)

Mission: PM DCATS supports joint warfighters, major commands and Combatant Commanders with dedicated, worldwide, strategic satellite ground components and long-haul terrestrial microwave communications systems, tech control facilities, command center upgrades, base radios, combat vehicle intercom systems and deployed forces infrastructure. DCATS is a suite of more than 100 projects. PM DCATS provides centralized, intensive project management of communications transmission systems projects and other special programs, worldwide. With a track record of proven success since 1967, PM DCATS can provide the long-haul connectivity customers need, using microwave, satellite, fiber optic or copper cable links regardless of distance, terrain or other impediments.

M. DEFENSE INFORMATION MANAGEMENT HUMAN RESOURCES SYSTEMS (DIMHRS)

Description: DIMHRS will be a single, standard military personnel and pay system supporting military personnel of all services and their components at the services -- personnel support activities. It will collect, store, pass, process and report personnel and pay data for these personnel. In addition, DIMHRS will provide the capability to collect, process and report appropriate data on DoD-sponsored civilians and designated foreign military personnel deployed to, or in, a theater of operations as required during specified contingency, wartime and non-combatant evacuation operations. This capability will accommodate surges in records maintained. The system will maintain personnel information on retirees and survivor personnel. Another system will provide pay support for survivors and retirees. The DIMHRS Program is a software application development effort.

N. DEFENSE MESSAGING SYSTEM-ARMY (DMS-A)

Mission: To support the Army and joint warfighter's information dominance objectives by partnering with DoD and other governmental agencies to develop, acquire, integrate, and deploy an enterprise solution for an interoperable, seamless and secure writer-to-reader electronic messaging system for organizational users. Extend the solution throughout the Army and supported Combatant Commands, whether strategically placed or tactically deployed.

O. DEFENSE WIDE TRANSMISSION SYSTEM (DWTS)

Mission: DWTS fields selected strategic and base support C4I systems. DWTS is also responsible for providing development, modernizing C4I systems, implementing terrestrial transmissions and improving technical control projects worldwide, for the Army, other services and the Joint Chiefs of Staff.

P. DISTRIBUTED LEARNING SYSTEM (DLS)

Mission: Acquire, deploy and maintain a worldwide distributed learning system to ensure our nation's soldiers receive critical training for mission success. Soldier readiness necessitates training on-demand. Distributed Learning System (DLS), the infrastructure that delivers distributed learning, is breaking old training paradigms by bringing training to the soldier anywhere, anytime, 24/7. Using state-of-the-art technology, DLS streamlines training processes; automates training management functions; delivers training using electronic means; and enables military and civilian personnel, training developers, training managers, unit commanders and training noncommissioned officers (NCOs) to access training using the Web. Distributed learning provides the Army with the capability to obtain the state of readiness necessary to accomplish the Army's mission and contributes to quality of life by increasing stability for both soldiers and civilians in their personal and professional lives. DLS is dedicated to providing a quality distance-learning system to all Army components in the most expeditious and cost-effective manner possible. DLS is responsible for fielding multiple training systems simultaneously--the success of each program directly impacting the Army's ability to meet its training mission. To date, DLS has trained over 581,000 soldiers through one of the five components it supports.

S. FORCE MANAGEMENT SYSTEM MISSION (FMS)

Mission: To design, develop and deploy an integrated Force Management System that will establish accurate, consistent and timely force structure information to the Army Force Management community. FMS will directly support the director of Force Management in the Office of the Deputy Chief of Staff, (G-3/5/7) and its mission of managing and allocating manpower and force structure information; documenting unit models (requirements) and authorizations over time; and providing organizational/ force structure solutions in support of the Army's transformation towards the Future Force.

T. GENERAL FUND ENTERPRISE BUSINESS SYSTEMS (GFEBS)

Mission: The General Fund Enterprise Business System (GFEBS) system will supply top-tier Army and DoD leadership with standardized, real-time financial data and business information, empowering them to make strategic business decisions that

directly benefit America's warfighters. GFEBS is a Web-based enterprise resource planning (ERP) solution that leverages commercial-off-the-shelf business enterprise software to enable the Army to compile and share accurate, up-to-date financial and accounting data across the service. As the Army's system of record for financial accounting and management, GFEBS will replace at least 80 percent of all overlapping and redundant systems and become one of the world's largest enterprise financial systems, eventually managing \$100 billion in annual spending. Release 1.1 of the GFEBS solution—a Real Property Inventory technical demonstration for Fort Jackson, S.C.—was set for completion in April 2006. Additional financial and accounting functions will be designed and configured in subsequent releases and increments. Following a phased in deployment strategy, the GFEBS solution will be fully functional at all Army and DFAS locations worldwide by 2009. A common system providing one authoritative source of the Army's financial management information, GFEBS facilitates deployed and geographically distributed operations and integration with other commercial business systems. Additionally, it will improve a commander's ability to allocate resources by:

- Increasing buying power
- Providing real-time budget execution information
- Pinpointing costs of specific operations
- Identifying total operational cost (mission and support costs)
- Improving asset visibility, cost of ownership and buy/repair decisions
- Providing accurate cost of readiness reports.

U. GLOBAL COMBAT SUPPORT SYSTEM-ARMY (FIELD/TACTICAL) (GCSS-A (F/T))

Mission: The Global Combat Support System-Army (Field/Tactical) is an enterprise resource planning (ERP) system for the tactical component of the Single Army Logistics Enterprise (SALE). GCSS-A (F/T) will execute tactical logistic business processes that will integrate/interface with applicable Command and Control and Joint systems. It is a logistics enabler that will help achieve the Army's and the Logistics Combat Support/Combat Service Support (CS/CSS) Transformation Vision. GCSS-A (F/T) was established in 2003 to convert legacy STAMIS systems into an ERP solution. Today, STAMIS systems interface with existing CSS automated systems and include functionality such as supply operations, property accountability, maintenance, ammunition and logistics management. Each system runs at any level or organization where the Army performs that function. The ERP implementation of GCSS-A (F/T) will be the Army's primary information system for tactical logistics. It will enable a seamless, integrated and interactive CSS information management and operations system for users at all echelons. The system will use an architecture comprising the user and a centralized national-level database and ERP application software, with interfaces to other systems as required. It will establish a net-centric management system with robust communications for timely and responsive Army logistics. 46

V. INSTALLATION INFORMATION INFRASTRUCTURE MODERNIZATION PROGRAM (I3MP) NSC

Mission: The Assistant Project Manager, Installation Information Infrastructure Modernization Program Enterprise Systems (IES) provides the Army with capabilities and adaptive processes that support net-centricity, secure access to knowledge and improved information systems and services throughout the Army environment. IES supports Army's ability to integrate and manage the infrastructure as an enterprise to enhance capabilities and efficiencies through the consolidation of print, file, Web and e-mail servers, Army global directories and by implementing enterprise system management for desktop operating environments. As the Army moves toward overall enterprise management, the efficiencies associated with the IES mission will reduce total cost of ownership. I3MP provides for the engineering, acquisition, implementation and management of the Army's installation level telecommunications infrastructure

(voice/data/ cable/long-haul gateway) to include the hardware and software required to manage the enterprise at Army posts, camps and stations worldwide. I3MP provides the capabilities to support the Global Information Grid (GIG), GIG Bandwidth Expansion (GIG-BE), Army Campaign Plan, Modularity, Army Expeditionary, Joint and Combined Forces, reachback and implementation of Army Knowledge Management Goal #3 (manage the infostructure as an enterprise to enhance capabilities and efficiencies). IES implementation of the infrastructure and support of a network centric Army will significantly impact the warfighter's ability to obtain timely and secure access to critical information.

W. INSTALLATION MANAGEMENT SYSTEMS-ARMY (IMS-A)

Mission: Provide Army personnel with IT that improves efficiency and provides standardization for the day-to-day functional business processes associated with the Army community.

X. INFORMATION TECHNOLOGY SYSTEMS (ITS)

Mission: Information Technology Systems (ITS) provides intensive centralized management of the modernization and replacement of IT systems infrastructure services and capabilities during the renovation of the Pentagon and associated facilities.

Y. JOINT-AUTOMATIC IDENTIFICATION TECHNOLOGY (J-AIT)

Mission: PM J-AIT provides a single point of contact for procurement and technical expertise across the suite of AIT enabling technologies. This supports focused logistics, Total Asset Visibility (TAV), and the integration of global supply chains. PM J-AIT provides automated near real time accurate data collection, aggregation, and retrieval that enhance information

management systems. We also manage Radio Frequency In-Transit Visibility (RFITV) for DoD, NATO and coalition partners in support of expeditionary logistics and the joint warfighter.

AB. LOGISTICS MODERNIZATION PROGRAM (LMP)

Mission: The Logistics Management Program (LMP) will provide a modernized solution that enables the Army Materiel Command to deliver world-class logistics and readiness to the warfighter. LMP will integrate such functionality as procurement and asset management, depot maintenance planning and execution, financial management, ammunition manufacture and maintenance, requisition processing and long-term supply planning. When fully deployed, LMP will support all aspects of the Army's national- and installation-level logistics.

AC. LAND MOBILE RADIO (LMR)

Mission: LMR manages, engineers, acquires, delivers and supports CONUS non-tactical LMR systems that support installation force protection, public safety, installation management and homeland security. The LMR program supports migration of Army, DoD and federal civilian agencies to narrowband frequencies as mandated by the National Telecommunications and Information Administration (NTIA). LMR is pursuing regionalization when economically and operationally feasible and promoting state and local interoperability requirements.

AD. MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE (MC4)

Mission: Medical Communications for Combat Casualty Care (MC4) develops, fields and supports a medical information management system for Army tactical medical forces, enabling a comprehensive, life-long electronic medical record for all service members, and enhancing medical situational awareness for operational commanders. By accomplishing this mission, the MC4 Product Management Office (PMO) will have provided the Army's solution to presidential and congressional objectives, set forth by Title 10 in 1997, which called for a medical tracking system for all deployed service members.

AF. MOVEMENT TRACKING SYSTEM (MTS)

Mission: MTS is the keystone to bringing logistics into the digitized battlefield of the 21st century. This technology will provide the communications and tracking necessary for all tactical wheeled vehicles (TWV) and other select Combat Service Support (CSS) assets to complete their distribution missions on the digitized battlefield. MTS provides the capability to identify position, track progress and communicate with the operators of TWV. Through the use of positioning and commercial communication satellites, MTS provides the means for transportation movement control and Combat Support/ Combat Service Support (CS/CSS) operations sections to exercise assured positive control of assets anywhere in the world.

AH. RESERVE COMPONENT AUTOMATION SYSTEM (RCAS)

Mission: Develop, field and sustain a modern automated information system that will sustain the United States in the 21st century, support the mobilization of reserve component units and significantly improve their ability to accomplish day-to-day unit administration. PMO RCAS is also responsible for Distributive Training Technology Project (DTTP). The RCAS is an automated information system that provides the Army the capability to administer, manage and mobilize Army Guard and Reserve forces more effectively. More than 50 percent of the Army's force structure is in the Reserve component. RCAS provides an integrated capability that supports mobilization and improves day-to-day administration and management of Reserve and Guard forces. RCAS links approximately 10,500 Guard and Reserve units at approximately 4,000 sites located in all 50 states, three territories and the District of Columbia.

AJ. SATELLITE COMMUNICATIONS SYSTEMS (SCS)

Mission: SCS manages the modernization, development and acquisition of DSCS earth terminals and baseband equipment for all military services and agencies. SCS is responsible for the development, acquisition, logistics support, testing, product improvements and fielding of strategic Super-High Frequency (SHF) satellite communications ground terminals. These satellite terminals are Joint Chiefs of Staff assets and are of prime importance to the Army, Navy, Air Force, Defense Information System Agency and other special users like the National Communication Authority's Direct Communication Link (DCL) program. SCS acquires, develops, fields and supports the satellite terrestrial subsystem, which provides the digital modulation data stream to the Defense Communications Sub-System earth terminals using the Standardized Tactical Entry Point (STEP)

and Multiplexer Integration and DCSS Automation System (MIDAS) Programs. SCS is also the system integrator for the ACAT 1 Teleport Program, responsible for the Teleport baseband equipment procurement and implementation. 50

AL. TECHNOLOGY APPLICATION OFFICE (TAO)

Mission: The Technology Applications Office (TAO) is a functionally integrated, task force organization designed to provide centralized, life-cycle management, engineering, fielding and operation of IT and infrastructure projects, supporting Headquarters, Department of the Army-approved programs. TAO also provides operational support in identifying, developing, testing and evaluating emerging technologies for interoperability and integration into information management equipment and systems.

AM. TRANSPORTATION INFORMATION SYSTEMS (TIS)

Mission: TIS is a joint program that falls within the DoD mission area of mobility and transportation for DoD passengers and cargo during war and peace. Operating as part of the Global Combat Support System (GCSS), it provides critical data to the Global Transportation Network (GTN) and Command and Control (C2) systems. It interfaces with joint and service systems to provide In- Transit Visibility (ITV) and Total Asset Visibility (TAV) to all branches.

AN. WIDEBAND CONTROL (WC)

Mission: Wideband Control is the manager for the development, acquisition, testing and fielding of satellite control systems for the Defense Satellite Communications System (DSCS) and Wideband Gapfiller System (WGS) programs. WC provides strategic satellite payload network control and planning systems for use with DSCS, Wideband Gapfiller and commercial satellite systems, such as the Objective DSCS Operational Control System (ODOCS); Gapfiller Satellite Configuration Control Element (GSCCE); Control Network Planning Software (CNIPS); Replacement Satellite Configuration Control Element (GSCCE); and Integrated Management and Power Control Subsystem (IMPCS), among others.

XX. PEO GROUND COMBAT SYSTEMS (GCS)

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A. PM HEAVY BRIGADE COMBAT TEAM

MISSION: The PM Heavy Brigade Combat Team (PM HBCT) delivers, sustains and modernizes combat power for the Army's Heavy Brigade Combat Team formations. PM HBCT is the Army's life cycle manager for the Abrams, M88, Bradley, M113, M109 and Knight family of vehicles. Our responsibilities include the design, development, production, fielding and sustainment of safe, reliable and lethal ground combat systems.

AREAS OF INTEREST: Technologies Associated With The Following:

- Survivability
- Lethality
- Mobility
- Modernization of Fielded Systems with Commonality as an Objective
- Embedded Training Capability
- Vehicle Health Management
- Future Systems Spin-Out

B. JOINT LIGHTWEIGHT HOWITZER 155MM

MISSION: The Joint Lightweight Howitzer 155MM Program Management Office (JLW155 PMO) takes a Joint (Army & Marine) perspective in managing the development, acquisition, testing, systems integration, product improvement, and fielding of the M777A1/A2 howitzer, designed to enhance strategic mobility and provide the infantryman and marine with effective and responsive fire support. JLW155 PMO's task is to provide a world-class, supportable howitzer system to the artillery cannoner permitting him to accomplish his mission. In addition to the M777A1/A2 howitzer, the program office is also responsible for the Army's M119 and M198 systems, as well as the Improved Position and Azimuth Determining System and the Gun Laying and Positioning Systems.

AREAS OF INTEREST: Technologies Associated With The Following:

- Advancements in Digital Fire Control Systems and Power Management
- Development, Production, Fielding And Sustainment Of Towed Artillery Systems
- Army Software Blocking
- Artillery Support Equipment (Aiming Circles, Collimators, Radar Systems)

C. ROBOTIC SYSTEMS JPO

MISSION: PM Robotic Systems JPO takes a Joint (Army & Marine) perspective in managing the development, acquisition, testing, systems integration, product improvement, and fielding of robotic systems which will form the backbone of the force of the future. PM Robotics Systems JPO is spearheading development of the first generation system employing the latest sensor, remote navigation, and command and control technologies to integrate robotics into the battlefield. Speeding these technologies to the battlefield has potential to revolutionize combat operations.

D. PM STRYKER BRIGADE COMBAT TEAM

MISSION: PM Stryker Brigade Combat Team develops, produces, fields and sustains a full range of safe, reliable, supportable and effective systems called Stryker, which will be the primary weapons platform during the Army's Transformation. The Stryker is a diverse fleet of medium weight vehicles capable of being rapidly deployed to trouble spots within the world. These vehicles leverage existing military "state of the art" technologies in order to provide world-class equipment to the soldier in record time.

XXI. PEO INTELLIGENCE, ELECTRONIC WARFARE & SENSORS (IEW&S)

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A. PM AVIATION ELECTRONIC SYSTEMS

MISSION: PM Aviation Electronic Systems provides Army aviation platforms countermeasures for self protection and survivability.

B. PM DISTRIBUTED COMMON GROUND SYSTEM-ARMY

MISSION: PM Distributed Common Ground System-Army (DCGS-A) is the Army embodiment of net-centric Intelligence, Surveillance, and Reconnaissance (ISR) for the Commander, analyst, and shooter. It brings threat, neutral, and weather capability to the common operating picture while providing sensor tasking, posting and processing of information, and exploitation of that information. It will provide fixed, deployable, man-portable systems or a software application depending on the Commander's requirements.

C. PM NAVIGATION SYSTEMS

MISSION: PM Navigation Systems (NAV SYS) provides the tactical Army with capability for self location through ground based and airborne GPS. NAV SYS also provides the means for combat identification.

AREAS OF INTEREST:

- Meteorological Measuring Set (Mms) (Upper Air Meteorological System That Makes Vertical Profiles Of The Earth's Atmosphere)
- Meteorological Measuring Set - Profiler (Mms-P) (Uses A Suite Of Meteorological Sensors And Data From Communication Satellites Along An Advanced Weather Model To Provide Highly Accurate Meteorological Data Out To A Range Of 500km)
- Combat Identification/Quick Fix Devices (Includes A Family Of Devices Used To Reduce The Risk Of Fratricide)

D. PM NIGHT VISION/RECONNAISSANCE, SURVEILLANCE, AND TARGET ACQUISITION

MISSION: PM Night Vision/Reconnaissance, Surveillance, and Target Acquisition develops, acquires, and provides superior, affordable day/night vision systems, weapon locating systems, and multi-sensor systems to the American Warfighter.

AREAS OF INTEREST: Technologies Associated With The Following:

- Long-Range Reconnaissance And Surveillance Sensor Systems
- Modular Target Location/Laser Designation Systems
- Thermal Imaging Technology
- Mobile Phased Array Artillery Locating Radar Systems
- Short Range Air Defense Systems
- Reconnaissance, Surveillance And Target Acquisition Systems

XXI. PEO INTELLIGENCE, ELECTRONIC WARFARE & SENSORS (IEW&S) (CONTINUED)

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E. PM SIGNALS WARFARE

MISSION: PM Signals Warfare provides the American Warfighter with the finest combat effective intelligence, surveillance, reconnaissance, and electronic warfare systems in the world, in a timely, cost effective and sustainable manner, while fully supporting Army transformation.

AREAS OF INTEREST: Technologies Associated With The Following:

- Providing Precision Targeting, Imaging And Geolocation
- Controlling And Exploiting UAV Mission Payloads
- Interception And Location Of Radio Emissions
- Airborne Signals Intelligence Collection Location And Exploitation Systems

F. PM AERIAL COMMON SENSORS (ACS)

MISSION: PM ACS is chartered to provide warfighters with the capability for tactically relevant airborne intelligence, Surveillance, and Reconnaissance (ISR) collection, processing, and dissemination. PM ACS programs include the management, sustainment, and modernization of two fielded systems, GUARDRAIL/Common Sensor (GR/CS) and Airborne Reconnaissance Low (ARL). Current GR/CS modernization efforts include the airborne sensor package and the migration to the GUARDRAIL Ground Baseline (GGB) to replace the current processing facilities. In addition, the PM has oversight for two systems under development, Tactical SIGINT Payload (TSP) currently in the System Development and Demonstration (SDD) phase and Aerial Common Sensor now in the Technology Demonstration (TD) phase.

G. PO JOINT PROGRAMS SUSTAINMENT AND DEVELOPMENT

MISSION: In response to the requirements of Combatant Commanders and the Department of Defense, PO Joint Programs Sustainment and Development (PO JPSD) integrates maturing technologies, commercial hardware and software and new tactics, techniques and procedures to facilitate development of capabilities in the areas of Command, Control, Communications, and Computers (C4), and Intelligence, Surveillance and Reconnaissance (ISR). PO JPSD uses non-traditional acquisition approaches, such as Advanced Concept Technology Demonstrations, Simulation Based Acquisition, rapid prototyping, and other novel approaches to accelerate the maturation and transition of key capabilities to the Army Future Force and future elements of the Joint Warfighting Force.

XXII. PEO MISSILES AND SPACE

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A. PM INTEGRATED AIR AND MISSILE DEFENSE

MISSION: The Program Office of Integrated Air and Missile Defense (IAMD) plans, develops, coordinates, and executes the Army Integrated Air and Missile Defense Acquisition Program. The IAMD program will utilize a spiral development approach to accomplish the migration from “stove-piped” systems to a “system of systems” approach. This method involves fielding capabilities incrementally and closely associated with the Combat Developer’s timeline for fielding Future Force capabilities.

The PEO MS is applying a System of Systems acquisition approach to meet the requirements of the warfighter and obtain the desired capabilities of the Army AMD Future Force. This System of Systems approach calls for a restructuring of systems into components of sensors, weapons and BMC4I with a standard set of interfaces among those components using a standardized set of networks to communicate.

The Product Manager for Integrated Fire Control or IFC is responsible for development, testing, fielding, and sustainment of the Common Battle Management Command, Control, Communications, Computers, and Intelligence or BMC4I system for the weapons components that constitute System of Systems. The Common BMC4I will bridge the gap between today’s fielded weapons and sensor components, such as PATRIOT and Sentinel, and tomorrow’s new developments, such as SLAMRAAM and MEADS.

B. PM JOINT ATTACK MUNITION SYSTEMS

MISSION: The Joint Attack Munition Systems (JAMS) Project Office was established in June 2005 with the merging of two project offices, Aviation Rockets and Missiles and Joint Common Missile. The office manages all aviation missiles within the Army. The Laser HELLFIRE® provides attack helicopter point target precision strike missile capability to defeat armor and selected targets. The Longbow HELLFIRE® provides the warfighter an air-to-ground precision missile system to engage and defeat individual advanced-armor hard point targets while increasing aircraft survivability. The 2.75 Inch Rocket provides air-to-ground suppression, smoke screening, illumination and direct and indirect fires to defeat area materiel and personnel targets at close and extended ranges.

Advanced Precision Kill Weapon System (APKWS™) will provide a low-cost precision strike against soft point targets while minimizing collateral damage. The Joint Common Missile (JCM) provides greater lethality, survivability and operational flexibility in support of Joint Operations and common target set for the Army, Navy and Marine Corps rotary-wing and fixed-wing platforms, unmanned aerial vehicles, and potential Future Combat Systems (FCS) ground components.

C. PM CLOSE COMBAT WEAPON SYSTEMS

MISSION: Close Combat Weapon Systems (CCWS) Project Office manages a number of anti-armor missile and target acquisition systems. Current missile systems include TOW 2, TOW 2A and TOW 2B. CCWS-managed target acquisition systems include the Improved Target Acquisition System (ITAS) and the Improved Bradley Acquisition Subsystem (IBAS). CCWS is also responsible for managing related ancillary Bradley TOW subsystems items and for preliminary work on the TOW Fire-and-Forget Missile System and the JAVELIN Medium Anti-tank System.

XXII. PEO MISSILES AND SPACE (CONTINUED)

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D. PM CRUISE MISSILE DEFENSE SYSTEMS

MISSION: Cruise Missile Defense Systems (CMDS) forces are highly deployable and provide the shoot-on-the-move capability and mobility necessary to support the maneuver force. CMDS is currently transforming from a system-centric Current Force capability to a capabilities-centric Future Force. EAADS or Enhanced Area Air Defense System is envisioned to be a mix of kinetic and directed energy systems capable of overmatching traditional air, artillery, mortar, rocket and cruise missile threats.

CMDS Project Office is equipping the transformation of current force Maneuver Air and Missile Defense (MAMD) capability into an Integrated Air and Missile Defense system of systems. Programs include Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS), Sentinel Radar, Surface Launched AMRAAM, STINGER based Avenger and Man-portable Air Defense System (MANPADS) and Directed Energy Applications (DEA).

E. PM LOWER TIER

MISSION: The Lower Tier Project Office is comprised of the PATRIOT®, MEADS, PAC-3 and the Joint Tactical Ground Station or JTACS. The MEADS air defense system, an international program with Germany and Italy will eventually replace the PATRIOT® with a system that expands the battle space, is more durable and maneuverable, and provides 360 degree force protection. During MEADS development key capability improvements will be incorporated into the PATRIOT® systems.

F. PM NON LINE OF SIGHT LAUNCH SYSTEMS

MISSION: The Future Combat System Non-Line of Sight Launch System (NLOS-LS) consists of a family of containerized guided munitions that are vertically launched directly from a highly deployable Container Launch Unit (CLU). Each CLU is enabled with self-contained technical fire control/electronics/ software for remote, unmanned operations. The NLOS-LS permits precision fire support to the Brigade Combat Teams or BCT at the right time and place in the most efficient and effective manner and is one of the premier systems for network centric operations and warfare in the Future Force. The current concept for NLOS-LS includes: Precision Attack Missile (PAM); Missile Canister; Container/Launch Unit (CLU); and Computer and Communications System (CCS). The CLU will serve as the basic NLOS-LS firing unit, shipping container, and launcher. It will provide an anti-tamper capability and be capable of remote commands to disable, launch, test for reliability, and conduct firing operations without the use of an attendant crew. The NLOS-LS will be platform independent. The Precision Attack Missile or PAM is a guided missile using a boost-glide trajectory for attack of hardened targets at extended ranges.

G. PM PRECISION FIRES ROCKET AND MISSILE SYSTEMS

MISSION: The Precision Fires Rockets and Missile Systems PMO manages the Multiple Launch Rocket System (MLRS) family of launchers, including the M270, M270A1 and the lighter High Mobility Artillery Rocket System, as well as the suite of rockets and missiles for the launchers. Munitions include the basic, extended range, and guided rockets, and the Block I/IA, Block II and Unitary Army Tactical Missile Systems.

XXIII. PEO SIMULATION, TRAINING AND INSTRUMENTATION (STRI)

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AREAS OF INTEREST: Technologies Associated With The Following:

- Computer-Driven Combat Vehicle Simulators
- Synthetic Flight Training System Simulators
- Ground Combat Virtual Training Devices
- Constructive Simulations
- Gunnery Training Systems

A. PM COMBINED ARMS TACTICAL TRAINERS

MISSION: PM Combined Arms Tactical Trainers (PM CATT) manages the development, acquisition, fielding, and life cycle support of the Virtual Synthetic Environment and associated Training Aids, Devices, Simulators, and Simulations (TADSS) to support individual, institutional, and collective training.

B. PM CONSTRUCTIVE SIMULATION

MISSION: PM Constructive Simulation (PM CS), in partnership with the National Simulation Center (NSC), cost effectively develops and sustains constructive simulations primarily supporting the Army's command and staff training requirements. Constructive simulations are currently the most effective means to train commanders and staffs of division and larger units and are playing an increasing role in the training of brigade and smaller commanders and staffs. As the army transforms to the Unit of Action and Unit of Employment this training venue will become even more important to battle staff training and protection against digital skill decay. Limited resources and increasingly limited time reinforces the need for a family of simulations tailor-made for a given training objective across the Range of Military Operations (i.e.; reception, staging, onward movement, and integration –RSOI operation, high intensity conflict, and stability and support operations -SASO). The simulations PM CS manages and develops are used by the Army to satisfy, in part, its statutory training responsibility. These simulations and tools as the Army Constructive Training Federation (ACTF) are also used to train the Army in a Joint Service context.

C. PM FIELD OPERATIONS AND SUPPORT

MISSION: PM Field Operation and Support (PM Field OPS) provides Program Management and direction of the worldwide Life Cycle Contractor Support (LCCS) program. This includes Planning, Programming and Budget Execution as well as awarding and managing competitive services contracts to support and operate Training Devices, Simulator and Simulations (TDSS) deployed around the world. TDSS are centrally managed by DA (DAMO-TRS) and include those developed by PEO STRI PMs and TDSSs developed by weapon platform PMs and Major Army Commands. OPS supports TDSS in the Live, Virtual and Constructive domains and supports PEO STRI PMs with acquisition logistics support throughout the development process.

XXIII. PEO SIMULATION, TRAINING AND INSTRUMENTATION (STRI) (CONTINUED)

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D. PM FUTURE FORCE (SIMULATION)

MISSION: PM Future Force (Simulation) [PM FF(S)], which is the integrating agent for PEO STRI, is responsible for orchestrating integrated and interoperable simulation solutions. PM FF(S): excels in providing the Warfighter the best possible training solutions and training environment supporting Army Transformation, current and future forces across the full spectrum of military operations; develops future collaborative training through a seamless Joint Live, Virtual, and Constructive Training Environment; leads as the Material Developer of training systems for the Future Combat System and other Army Future Force training systems; ensures enhanced Warfighter readiness and proficiency through Modeling and Simulation (M&S) applications in training and operational utilization and reuse of Common Product Components; and, provides the soldier and Army leaders with the resources to implement developments of Simulation and Modeling for Acquisition, Requirements, and Training (SMART) processes, capabilities and services.

E. PM INSTRUMENTATION, TARGETS AND THREAT SIMULATORS

MISSION: PM Instrumentation, Targets and Threat Simulators: manages the research, development, design, acquisition, fielding, modification, and capability accounting of major instrumentation, targets, and threat simulators required for developmental and operational test and evaluation (T&E) and training; manages the Central Test and Evaluation Investment Program (CTEIP) and Resource Enhancement Program (REP) for the Army; manages operations of targets for T&E and training of Army and Foreign Military Sales (FMS) customer troops; manages the Army Instrumentation, Targets, and Threat Simulators (ITTS) Long Range Planning Process; develops and implements policy direction and control over funding and execution of major instrumentation, targets and threat simulator/simulation projects; and, serves as the Army's single manager for acquiring targets, threat simulators/simulations, and major test instrumentation.

F. PM TRAINING DEVICES

MISSION: PM Training Devise (PM TRADE) takes great pride in having provided a wide variety of training systems to support the soldier in the field for fifty years. Our legacy includes Army standards such as MILES, COFT and Flight/Combat Mission Simulators. PM TRADE developed and fielded instrumented training systems to the National Training Center at Fort Irwin, California, the Joint Readiness Training Center at Fort Polk, Louisiana, and the Combat Maneuver Training Center at Hohenfels, Germany which enables them to provide world class training and after action reviews for the training units. Currently, PM TRADE focuses on Live Environment Training Systems including training instrumentation systems to support home station training, Military Operations in Urban Terrain training, Maneuver Combat Training Center training, and digital ranges. Additionally, PM TRADE provides the Army's Tactical Engagement Simulation Systems and Precision Gunner Systems to support all aspects of live tactical engagement simulations, generic training threat simulators and training products to support digitized force training.

XXIV. PEO SOLDIER

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A. PM SOLDIER EQUIPMENT

MISSION: PM Soldier Equipment (PM SEQ) develops, fields, and sustains the world's best Soldier equipment to advance Soldiers' warfighting capabilities. PM Soldier Equipment procures, adapts, or develops state-of-the-art sensors, lasers, clothing, and other individual equipment.

AREAS OF INTEREST:

- Helmet-mounted vision enhancement for improved situational awareness in all visibility conditions
- Weapon sights for enhanced target acquisition
- Weapon-mounted and Soldier-carried sensors and lasers for accurate location of targets by pointing, illuminating, locating, and/or designating
- Ballistic and fragmentation protection
- Technologically advanced tactical and environmental protective clothing
- Individual chemical protective gear
- Personnel parachute and other airdrop equipment

B. PM SOLDIER WARRIOR

MISSION: Project Manager Soldier Warrior (PM SWAR) supports the Soldier-as-a-System concept through the acquisition of all warrior systems.

AREAS OF INTEREST:

- Ground Soldier Systems
- Air Soldier Systems
- Mounted Soldier Systems

C. PM SOLDIER WEAPONS

MISSION: Project Manager Soldier Weapons (PM SW) supports Soldiers through research and development, production, and procurement of current and future weapon systems, ammunition, and related target acquisition / fire control products. It is the mission of PM SW to guarantee U.S. Soldiers have an overmatch in individual and crew served weapons capabilities on present and future battlefields; maintain individual and crew served weapons' readiness for the Army through intensive management of the full acquisition lifecycle; be immediately responsive to the Soldier's wartime individual and crew served weapons requirements, and ensure interoperability with Soldier System programs to achieve the goals of the Objective Force Warrior.

AREAS OF INTEREST:

- Light to heavy machine guns
 - Grenade launchers
 - Snipers systems
 - Small arms ammunition
 - Remote weapons stations
 - Carbines, pistols, shotguns
 - Small arms ammunition
-